MAY—JULY 1980

REPEATER JOURNAL

NATIONAL AWARD WINNER

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The Bluefield Repeater Antenna Goes UP, High Above Some 3,700 Feet! CVRA Cover Story Inside.

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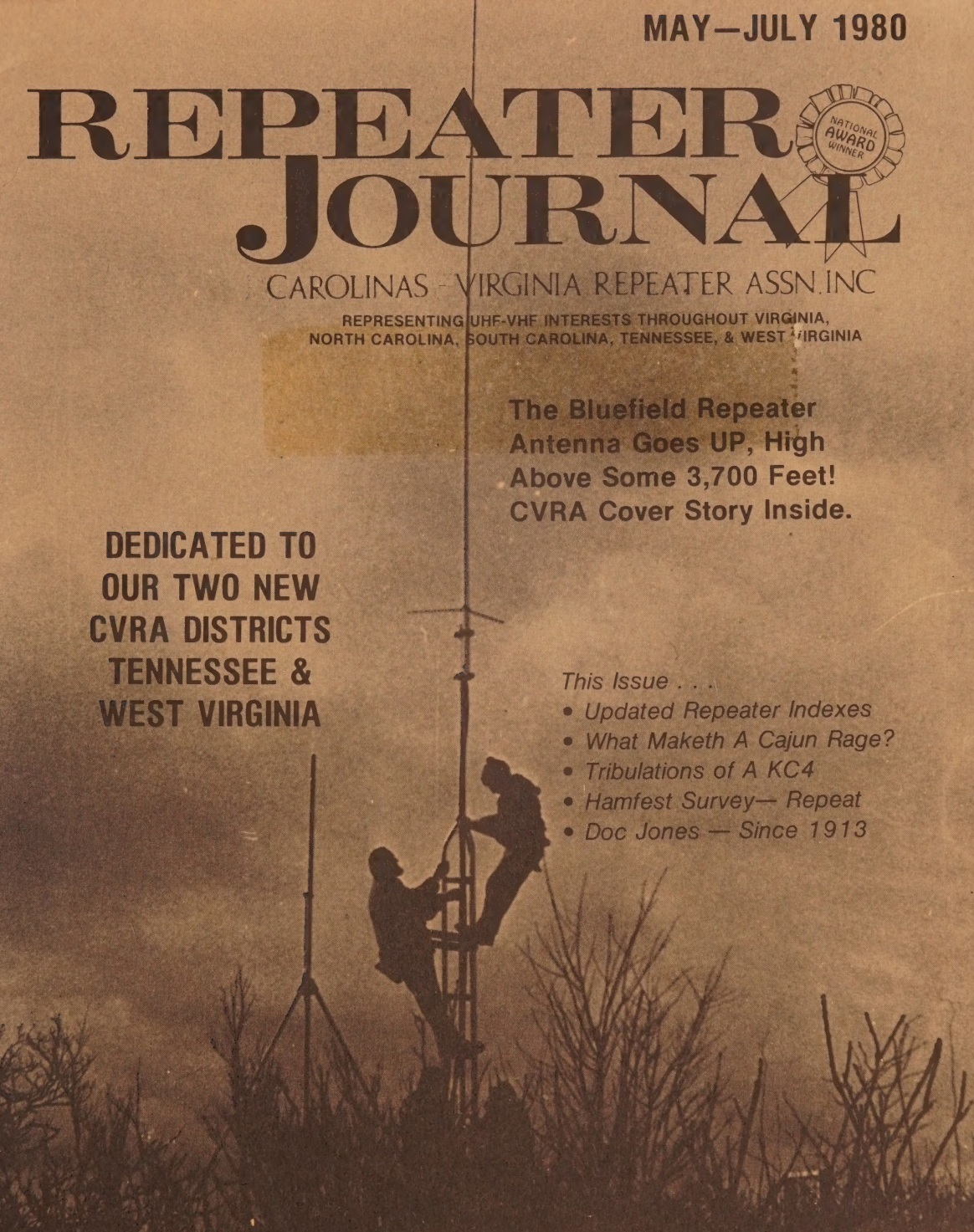

This Issue . . .

- *Updated Repeater Indexes*
- *What Maketh A Cajun Rage?*
- *Tribulations of A KC4*
- *Hamfest Survey— Repeat*
- *Doc Jones — Since 1913*

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REPEATER JOURNAL

CAROLINAS - VIRGINIA REPEATER ASSN. INC

MAY, 1980 "IN OUR 9th YEAR" VOLUME 9, NO. 2

ORGANIZED 1971

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ON THE COVER

East River RC, W.Va. Antenna Going up for 89-49 machine atop E. River Mt. HAAT is 1,062 ft., AMSL 3,735 ft. See Cover Story this issue of Repeater Journal.

EDITORIAL COMMENT

THE CVRA JOURNAL

WELCOMES OUR

TWO NEW DISTRICTS

TENNESSEE and WEST VIRGINIA

NOW WE ARE CVTWVARA

Two years ago I wrote an editorial entitled "CVRA Can Be A CVTWVAGDCRA." I was speculating what our organization would be like with the addition of several new districts along the Southeastern part of the Country.

Now, we have a good start. Since the beginning of the year, CVRA has taken on two new districts, Tennessee then West Virginia, making our organization officially spread across 5 States. In February the Georgia Repeater Council was campaigning to get that state into the CVRA, but we have heard nothing from them in several months now.

It is quite pleasing to look at the fresh new talent coming from our new Districts. I have had the pleasure of meeting most of them in person, and talking to several others on the phone numerous times.

These men wanted to see their States become a part of CVRA, and since this has comeabout, they continue working hard to get additional repeaters and

Continued On Page 36

The REPEATER JOURNAL is published four times each year in the months of February, May, August and November free to members of the Carolinas-Virginia Repeater Association. Permission is granted for quoting from the REPEATER JOURNAL provided credit is given. The CVRA will swap newsletters with other Repeater Councils and News Organizations on request. The REPEATER JOURNAL has a circulation of 3,500 copies and is entered as Third Class Mail at the Post Office in Greensboro, N.C. The CVRA mailing address for membership is: CVRA, P.O. Box 5655, Greensboro, N.C. 27403. All news and Newsletters should be mailed to the editor, Wayne C. Williams, Route 1, Box 806, Colfax, N.C. 27235.

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South Carolina Governor Richard W. Riley (seated) with officers of various South Carolina Amateur Radio clubs as he signed an official proclamation on Amateur Radio Week for the State. This annual event honors Amateur Radio throughout the state as it proclaims Amateur Radio week during June 22-28.

BILL PAIGE RESIGNS AFTER SIX YEARS SERVICE

-by Wayne C. Williams, K4MOB

"I took this job of Full Membership Chairman from Bill Parris, (K4GHR) AA4R when he called me in February of 1974," related Bill Paige, "And I have enjoyed every moment of it.

"But now it's time for me to step aside and let someone else hold the reins for a while."

As Bill told me this on the telephone, I couldn't help but admire a man who unselfishly devoted so much time to a public service organization for so many years. Bill said back in 1974, Parris was editor of the Journal, Associate Membership chairman, Full Membership chairman, Ad Manager and several other jobs rolled into one.

"I took part of his load," said Paige. "And you know, it's been a very rewarding experience for me. I was able to do the job at my own pace and help out whenever I could."

Paige said there were about 52 members listed in 1974 and most of them from North Carolina. He said now, we have 5 States and over 200 repeaters listed as full members.

He said he lived far from the central part of things and just couldn't get to many of the meetings, and felt someone should be chosen for the job who can get out to meetings and hamfests, and above all, have access to a copy machine. (Bill supplies the Journal editor, the computer and others with copies of every membership that comes in.)

"The future," said Bill, "I plan to continue my job in broadcasting a while longer, but I'm going to try to spend more time with my family and do a little more traveling."

We wish Bill well in the future. A splendid "well done" on his Full Membership chairman job over the past 6 years.

GOVERNOR RILEY PROCLAIMS JUNE 22-28 AMATEUR RADIO WEEK IN SOUTH CAROLINA

The Honorable Richard W. Riley, Governor of South Carolina recently signed a proclamation honoring the State's Amateur Radio operators. The proclamation proclaims the week of June 22 through 28, 1980 as Amateur Radio Week in South Carolina.

The proclamation reads:

WHEREAS, amateur radio is an association of persons interested in the fascinating field of electronic communication who are constantly seeking by various means to improve their art; and

WHEREAS, amateur radio operators in South Carolina and around the world are actively participating in communications with each other in a responsible and public service oriented manner; and

WHEREAS, amateur radio operators also make great contributions to community service by providing communications in times of emergency and disaster; and

WHEREAS, amateur radio operators contribute to worldwide understanding and communications by their dedicated efforts to their avocation; and

WHEREAS, they have assisted in the development of technical advances in radio communications; and

WHEREAS, these amateur activities are conducted without cost to the beneficiaries thereor, all expenses being borne by the Individual Amateur Radio Operators themselves as part of their public service. It is fitting that we should recognize the contributions Amateur Radio makes to our State and our nation.

NOW, THEREFORE, I, Richard W. Riley, Governor of the State of South Carolina, do hereby urge all South Carolinians to join with me in observing the week of June 22-28, 1980, as:

AMATEUR RADIO WEEK

in South Carolina, and commend this observance as being a worthwhile endeavor.

Richard W. Riley

REPEATER JOURNAL HONOR ROLL

The persons listed below will be receiving a handsome certificate plus retain their place on the CVRA Journal Honor Roll for their outstanding and unselfish assistance to our organization. If you would like to be recognized and your name put on our Honor Roll, all you have to do is sign up 10 or more people as Associate Members. When you have verified that they have sent in their applications, send their callsigns with YOUR name, call and address to the "Repeater Journal" editor. His name is on page 1. Your name will appear the very next issueon the Repeater Journal Honor Roll. CVRA Officers, Directors or appointees are not eligible for this award.

Marie Pressler, WA4YMM
Fayetteville, N.C.

Mecklenburg Amateur Rad. Soc.
Charlotte, N.C.

L. Phil Wicker, W4ACY
Greensboro, N.C.

Don (Andy) Anderson, WD800R
Bluefield, W. Va.

GET ON THE REPEATER JOURNAL HONOR ROLL
JUST SIGN UP 10 AS ASSOCIATE MEMBERS.
ITS THAT EASY! ! ! ! !

(Journal Editor Must be Notified For entrant to be eligible)

THE REPEATER JOURNAL HONOR ROLL — REVISITED

We are not certain how many took time to read the story last issue about an honor roll we planned for Amateurs who signed up 10 new members. We have not heard how many are working on this little challenge.

Marie Presler, WA4YMM of Fayetteville let us know. She presented us with her list of 12 new members she has obtained in less than 5 weeks after the February Journal was published. So Marie has the distinction of being NUMBER ONE on the "Repeater Journal Honor Roll." Her name will remain on the roll as others are added in the future. The honor roll will be published until further notice in each issue of the Journal. At the end of the year, we will have handsome certificates of merit to present to everyone who has qualified as an honor roll recipient.

Although they didn't ask, we have voted to place the entire Mecklenburg ARS of Charlotte, N.C. in second on our honor roll. This club mailed out over 32,000 brochures for their hamfest, each containing a letter and an associate membership appliction for the CVRA. They have already qualified several times for our "Honor Roll."

Directors and appointees of the CVRA are not eligible to be placed on the Journal "Honor Roll' because they are supposed to be getting memberships anyway. But you as a reader can become eligible. All you have to do is make copies of the Associate Membership application located in this Journal, and get 10 or more persons to join the CVRA. When they have mailed in the applications, you send the Journal Editor a sheet with your name and address and the call signs of the 10 or more individuals you got to join. Then your name and call will be placed on the Journal "Honor Roll' in the next issue.

Lets see how many of you make it by next issue.

KNOXVILLE HAMFEST AND ARRL SECTION CONV. MAY 24 & 25

The 1980 Knoxville hamfest and ARRL Section Convention will be held on Memorial Day weekend, May 24 & 25 at the Jacobs Exhibition Building on the Tennessee Valley Fair Grounds in Knoxville.

The hamfest will be held in the 75,000 square foot under-one-roof area of the exhibition building. Six garage doors allow complete drive-in access to the display area for dealers and tail-gaters. Standard flea-market prices will also be available to dealers who wish to set up.

For further information, contact Raymond J. Coker, III, 3120 Great Meadows Drive, Knoxville, Tennessee 37920. The Hamfest is sponsored by the Radio Amateur Club of Knox County, Inc.

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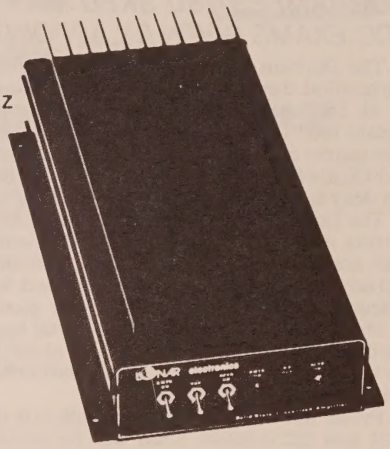

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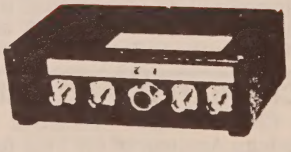

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CVRA NAME CHANGE DEFERRED UNTIL SEPT.

At a special meeting of the CVRA board of directors at the Charlotte Hamfest in March, they elected to wait until September at the annual meeting to decide on a new name for the organization.

President Lane Tarleton instructed each of the 5 State Directors (acting Directors for Tennessee and West Virginia) to look into favorable names from people in their Districts and submit them to the CVRA Secretary prior to July 15th and the Secretary, Mike Williams, KC4AO will compile all the suggested names in the form of a ballot and return a ballot to each of the Directors. The Directors will in turn decide on their favorite, and according to the CVRA by-laws, 30 days later, be able to officially vote in the new name at the Annual meeting in Shelby on August 30.

Also on the agenda at the Charlotte meeting, the Districts of Tennessee and West Virginia were officially and unaniously voted into the CVRA with changes to the BY-Laws which had been submitted to the directors 30 days prior.

Former President, Charles Durst, WA4WTX, who was unable to attend the January meeting in Greensboro, spoke to the group, expressing his appreciation for the cooperation and work each had done during his 1978-79 tenure as President of the CVRA.

Durst initiated a special award, which he said he hoped would be continued by future presidents as they leave office. The award, a handsome plaque in black and gold bronze on a wood slate was called the "CVRA President's Award." Durst said the award was presented to a person working in an official capacity of the CVRA who had shown exceptional work for the betterment of the CVRA. He then presented the first President's Award to Wayne C. Williams, K4MOB, for his work as Editor of the CVRA JOURNAL since 1977.

DURHAMFEST 80 SKED MAY 17-18 FCC EXAMS GIVEN BY APPOINTMENT

The Durham FM Association holds their annual Durhamfest this year on May 17 and 18. The event will be at the South Square Mall off highway 801/601 Bypass near Durham, N.C. The FCC is committed to give exams on Saturday morning by appointment only. FCC 610 forms are due at the Norfolk office by Friday May 9, as you receive your Journal.

The Durhamfest will feature a 2-day covered flea market under the parking deck of the South Square Mall and will be held rain or shine. Demonstrations and seminars are planned. Tailgaiting and dealers are welcome to come and set up with their goodies.

Shopping and many other interesting features are available for the family on Saturday at the mall. For the kids, a large game room, movie theaters and quick order eating establishments.

Prizes will be drawn Sunday. Talk-in is on 825-225, 34-94 and 222.34-223.94. Food will be available both days.

ADDRESS — CALL SIGN CHANGES

If you have moved or have a new call sign be sure to send the change to the CVRA Associate Membershipo chairman. Check your address label, is it correct? If not, a note to the Associate Membership Chairman will get it corrected. Be sure to list both your old AND new call sign or address when writing. Write to the CVRA address on back cover.

GEORGIA STATE ARRL CONVENTION ATLANTA HAMFESTIVAL JUNE 21-22

The 1980 Georgia State ARRL Convention will be held in conjunction with the Atlanta Hamfestival on June 21 and 22. This large event will be located at the downtown Atlanta Marriott Hotel exhibition hall. The Club reports nearly 7,000 people registered at the 1979 event and expect the 1980 festival to draw even more.

Numerous programs, seminars and special events are planned. Computer hobbiest exhibits were a big hit at their last event.

The exhibit hall containing almost 150 booth spaces will be overflowing with dealers and manufacturers showing all the latest Amateur equipment and hobby equipment. A large tailgate flea market is also held near the exhibition hall. For further information about the Atlanta Hamfestival and Georgia State ARRL Convention, contact: Atlanta Hamfestival, P.O. Box 27533, Atlanta, Ga. 30327.

CHARLOTTE ARC NAMES AMATEUR OF YEAR-ELECTS OFFICERS

The Charlotte ARC announces the naming of Lillie Murchison, WB4BUK as the Charlotte-Mecklenburg Amateur of the Year for her outstanding contribution to the club and Amateur radio as a whole.

The club also elected new officers for the 1980 calendar year. They are:
President, Robert Bodenhamer, WA4TIJ; Vice-President, John Bunning, N4BTK; Secretary, Carolyn Bodenhamer, KA4AVL; Treasurer, Don Biltcliff, WD4BEJ and Activity Manager, Ken Boyd, WA4UNZ.

The Charlotte ARC is very active in community affairs and the club call W4CQ is heard during Field Day and other contests. The club also had a very successful communications exercise for the Charlotte-Observer Marathon.

According to Carolyn Bodenhamer, the club plans to continue their efforts to serve the community and to bring recognition to our unique hobby of Amateur Radio.

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MORGANTON REPEATER Since 1972

-by Mike Palmer K8LG

Situated atop Chestnut Ridge on the western front of the Alleghenies, WR8ABM — The Morgantown Repeater is "the big machine on the mountain" for hams from central West Virginia through southeastern Ohio and to metropolitan Pittsburgh, western Pennsylvania and western Maryland.

WR8ABM operates on 144.83 MHz in, 145.43 MHz out from 2600 feet elevation, 280 feet up the tower of West Virginia University's public television station, WMVU-TV. The machine runs full legal power and is open to all amateurs.

The repeater is owned and maintained by the Monogalia Wireless Association of Morgantown, Monogalia County, West Virginia.

The mighty Morgantown repeater had a humble beginning in the back seat of a taxicab. During the autumn of 1972 the repeater signed on with the call K8LGS from the home QTH of Mike Palmer (now K8LG and current president of the Monogalia Wireless Association as well as repeater trustee). The equipment was a modified RCA Carfone and a dozen 2-meter rigs in Morgantown were also taxi radios purchased cheap and dirty from a Clarksburg, W Va. cab company. Most of these had been carried behind the back seats of the cabs

In the spring of 1973 the K8LGS repeater was taxied to the present QTH of WR8ABM, a pair of homebrew antennas were installed on the TV tower and both the joys and the problems began. The original frequency was 146.19/.79, but a repeater in nearby Washington, Pa. was being established on that frequency, so the Morgantown machine moved to .16/.76. This new split happened to coincide with a repeater in Wheeling, W. Va., and this proved too close for comfort for several years.

But the problem of co-channel interference was minor compared to the recurring technical problems of the RCA Carfone. The MWA spun off an affiliated Repeater Association which financed the necessary improvements. In 1976, through the work of then-trustee David Mitchell, K8DM and others, the homebrew antennae were replaced with a pair of Phelps-Dodge Super Stationmasters which instantly improved coverage in the hilly terrain. Then the Carfone strip was supplimented by a Standard repeater. In January of 1979, after several years on the waiting list, WR8ABM received a commercial-grade repeater from RCA (not another taxi radio) which now provides dependable coverage. The repeater was also wired for emergency power.

Each improvement, however, increased the interference problem with Wheeling. So when the new 2-meter subbands opened to repeaters, after a poll of members of the Monogalia Wireless Repeater Association, WR8ABM moved to its present frequencies. The "QSY Party" was held on 30 May 1979 to frequencies approved by coordinators in West Virginia, Pennsylvania, Ohio and Maryland.

WR8ABM has always been a "big ears, big mouth" machine, but never so much as during summer tropo season when DX becomes commonplace on VHF. In August and September of 1978, while the machine was still on 16/76, it was not unusual to hear a ham in Indiana ask "What repeater am I working?" and get the response "I think it's Morgantown, West Virginia" from a mobile in Detroit. The regular WR8ABM group logged contacts with stations as far away as Nebraska.

An even more unusual application of the repeater came with a 1976 research project by anthropologist Dr. H. Russell Bernard, WB8TMB. Russ monitored the machine for a month and logged the duration and participants in each QSO. He then asked all those who'd been heard to tell him with whom they'd communicated. These reports provided the first accurate measurement of the reliability of such reporting, which is essential in social scientific research. This experiment is described in an article by Russ Bernard in the March, 1980 edition of **CQ Magazine**.

Meanwhile, in January of 1980 the Standard equipment that was retired from service by WR8ABM was carried back down the mountain and began operation as a local-coverage repeater on 16/76 from atop the Engineering Sciences Building at West Virginia University, carrying the WVU Amateur Radio Club call W8CUL.

Repeater Journal Cover Story

PUTTING A REPEATER ON A TALL MOUNTAIN — NO EASY TASK

-by Don Williams, WA4AUA

Three years ago, members of the East River Radio Club in Bluefield, West Virginia had a dream of placing a repeater on East River Mountain, high above Bluefield. At that time there were only two repeaters with coverage into the Bluefield area, and both were some distance away.

The two nearby repeaters, Alderson (13/73) and Beckley (25/85), had begun to entice two-meter activity some time earlier, and several area hams already had crystal rigs, working the repeaters as well as simplex. Chess games were a regular nightly ritual on 52/52 with W8KBU and K8ZDV.

WB4LRO, WB4BBF, and others finally began to take steps that enabled the club to begin to gather together the necessary equipment to place a Bluefield repeater on the air. They got an old G.E. tube-type commercial repeater donated by a local communications service company, rescuing it from the grave, so to speak, as it was destined for the junk heap.

A new six-cavity duplexer was purchased from R. F. Technology, and a club member donated a Ringo Ranger to use as an antenna.

Unable to reach an agreement with parties in control of a commercial site at the top of the mountain near the channel 6 TV transmitter, the club settled on a spot in the gap near where US 52 crosses the mountain. This site belonged to the city of Bluefield and was used for police radio systems and very limited commercial activity.

BLUEFIELD REPEATER antenna gets alignment. and bolts before being hoisted on its tower some 3,700 on top of East River Mt. Club President Don Williams, WA4AUA works on the bolts while Kent Ruble, WD4EVS and Harold Hodges, KA8CAV assist. Hodges is Vice President of the club.

EAST RIVER RC (W. Va.) members WA8RHT and WD4EVS on Tower with KA8CAV on Building and WD8OOR, K8BHG, KA4CLO supervising. Paul Osburn, W8ZNT is in charge of the TV and FM transmitter on the mountaintop site.

The CVRA coordinated a frequency of 146.16/146.76 for the site, which was about 180 feet below the top of the mountain and was shadowed from Princeton, an important community northeast of Bluefield which houses the county seat of Mercer County. At that time there were no nearby 16/76 repeaters. The Kingsport (Bristol) repeater was located on Bays Mountain and didn't cover The Bluefield area.

The new repeater was put together, and after a test period in town at Appalachian Power Company's service center, it was placed in service in August of 1977 at the city-owned site.

Improvements then came periodically as equiopment became available. A new four-pole colinear antenna was installed on a cold windy day in November of that year by a group of die-hard club members. Then, during the next year, both the transmitter and the receiver were replaced in turn by VHF Engineering solid state kits, built by members of the club. Autopatch followed, but even-

Continued On Page 16

FOURTH ANNUAL GASTONIA HAMFEST, MAY 24 & 25

The fourth annual Gastonia ARS Hamfest will be held May 24 & 25 at Karyae Park in Gastonia, N.C. The club will offer grand prizes both Saturday and Sunday. Hourly drawings will be held for other prizes.

Several motels and restaurants, as well as KOA campgrounds are near by. Talk-in is on 72-12 and 52 simplex. Exhibitors may set up at 7:00 a.m. Saturday.

For further information contact: Terry Isenhour, WA4OPO (Hamfest Chairman)

SOUTHERN WV REPEATER ASSN. ELECTS OFFICERS — DIRECTORS

The Southern West Virginia Repeater Association, sponsors of the Charleston 28-88 repeater met in January and installed three new and one incumbent directors. They are: Jim Smith, WD8BLE; Mac McMillan, WD8OZT and John Jones, WB8CQV. Bill Hunter, K8BS was re-elected for an additional two years.

In February the board meeting was held in St. Albans with all Directors attending. New 1980 officers were chosen. They are: President, Bill Hunter, K8BS; Vice President, Lovell Webb, N8LW; Secretary, Bernard Dodd, W8ETF and Treasurer, Mac McMillian, WD8OZT.

The board recommended that dues remain the same, but with upgrading plans for the WB8CQV/R repeater in the future, additional financial support may be necessary.

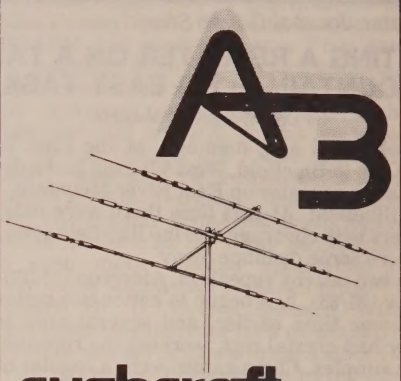
John Jones, WB8CQV, trustee told the group of plans for the 28-88 machine which include a new antenna, a new transmitter, new control system, a new satellite receiver in the Coal Mountain area, and possibly a change in transmitter location. Plans called for the first phase, the new antenna to be purchase in April. (Bill Hunter, K8BS)

ALTAMONT ARC ELECTS OFFICERS

The Altamont ARC, Inc. of Easley, S.C. recently held its annual election of officers. Elected to the office of club President was R. E. (Rich) Tillotson, WA4SSJ; Vice-President, H. M. (Mandle) Rigdon, WB4QHF; Secretary, W. E. (Bill) Payne, KA4EVT and Treasurer, M. S. (Steve) Carmen, AJ4N.

The Club project for the past couple of years has now been realized. Their 220 mhz repeater on Sasifrass Mountain is now operational. The machine operating on 222.46-224.06 reports mobile coverage in excess of 100 miles in some areas.

The Altamont club holds a neet each Monday night at 8:30 on the repeater. Club meetings are held every fourth Tuesday at 7:30. The May and June meeting will be held at the First Federal Bank Building in Easley.



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"Ya Can't Live There, Ole Man"

-by Michael K. Williams, KC4AO

I could have kissed the mailman when he finally brought me that white envelope from the F.C.C. I didn't though, not wanting to give further credability to the theory that my neighbors hold that I am already a little strange. They've just never understood why all that copper wire is hanging in my back yard. I waved to the mailman, then quickly ripped open the envelope to inspect my newly renewed ham license. Hot dog! There is was . . . my new call! KC4AO! As I walked back toward the house, I thought what it would be like using a brand new call for the first time in 17 years. Gone was old WA4JIY, a call I had disliked for so long. Never mind the four hundred and eighty-six QSL cards I still had with my old call on them. I would gladly fork out the small fortune that a new batch of QSL cards would cost me. Nothing was too good for my new call.

Gone was the old envy and anger I had felt everytime I heard one of those new hams with a one-by-three or two-by-two call. Gone was my anger at the F.C.C. that I felt everytime I thought of an advanced class amateur who has held that class of license for nine years, yet who was unable to get one of those new calls for so long. I had it made now! Never mind eating lunch . . . on to the ham rig to use that new call. I'll try 2 meters first to let all the locals know that I'd received my new call. I'll just flip on the old Icom and QRZ the repeater.

I grabbed the microphone, pushed the button and identified on the local repeater. "KC4AO, anybody around?"

"KC4AO, this is WD4$$$. The name here is Clyde, old man. Welcome to Danville, and feel free to use the repeater anytime . . . over."

"WD4$$$, this is KC4AO. Clyde, it's Mike. I just got my new call . . . over."

"Roger, Mike. I missed part of that. Had to change gears. This traffic is terrible today. Where'd you say your home QTH was . . . over."

"Danville, Clyde. This is Mike. I got a new call." Mike? Oh, yeah. I thought the voice was familiar. I didn't recognize you with that strange call. What'd you change your call for? Nobody will recognize you now."

Well, Clyde, I guess it will be a little confusing for a few days, but I'm sure everyone will get used to it eventually. You heading to work, Clyde?"

"KB...? KC4-whatever-it-was, this is WD4$$$. Yeah, I'm on second shift now. Just can't seem to get used to it. Well, I'll sign with you now. I'd better pay attention to my driving. Traffic's heavy today. 73s, and we'll catch you later. KC4-A-uh-I-forgot . . . this is WD$$$ . . . clear."

"KC4-something, this is K4¢¢¢. Name here is Phil. This is the first time I've heard someone on 2 meters from Antartica. I'll bet you're glad to get away from all that snow for awhile . . . over."

"Hey, Phil! It's Mike. Just got my new call. You remember me, old WA4JIY."

"Sure, Mike. Why'd you trade in your call for such a confusing call. I'll never get used to your new call. What's the matter, the good ole W call not good enough for you?"

"Naw, it's not that. I like to contest, and I thought I'd get myself a shorter call, Phil. Besides, I've always hated my old call. I didn't think anybody would care if I changed it."

"Well Mike, I think it's strange. That's the trouble with people today. Nobody's satisfied with what they've got . . . always wanting something different. You get tired of your wife, are you going to swap her for a new one too?"

"I think I'll QSY to 20 meters and see if any DX is coming in. K4¢¢¢, this is KC4AO . . . see you later."

With mixed feelings, I switched off the VHF rig. My enthusiastic debut on 2 meters with my proud new call had gone over like a lead balloon. Oh well, to 20 meters, the nearest thing to a demolition derby the ham bands have to offer.

I found a reasonably clear spot, swung my beam West and called a CQ, proudly signing my new call. When the transceiver dropped back to receive all I could hear was a roaring noise. Here and there I could pick out a call. I answered a W1, happy my signal was so strong. The station, W1%%%, gave me a signal report, his state, his name, and a request for a QSL. In 13 seconds flat he turned it back over to me while in the background I heard several "breaks."

"W1%%%, this is KC4AO. You're five-nine. Nice signal, Jack. Name here is Mike. The QTH is Danville, Virginia. How're things in one-land. W1%%% from KC4AO . . . go ahead."

KC4AO from W1%%%. Please repeat your QTH . . . QRM here. There are a bunch of breakers . . . over!"

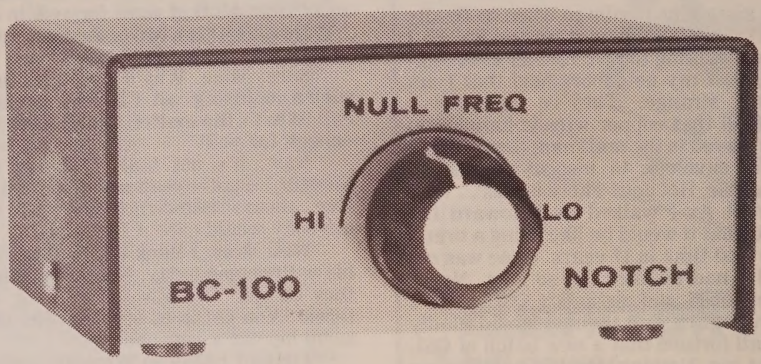
"This is KC4AO. QTH is Danville, Virginia. I'm in the Southern part of the state . . . almost in North Carolina . . . over."

"Virginia . . . North Carolina? What are you, some kind of bootlegger? For your information, KC4 is Antarctica . . always has been. I suggest you get off the air, you lid. You shouldn't come on the air with that kind of call when you're not DX. KC4AO, this is W1%%% . . . clean."

Somewhat skaken, I moved up the band a bit. I found another clear spot and called another CQ. The same thing happened! There were dozens of stations answering me. I picked out a strong WA7 and gave him a call. "WA7&&&, this is KC4AO. You're

Continued On Page 31

THE FABULOUS BC-100 AUDIO NOTCH!



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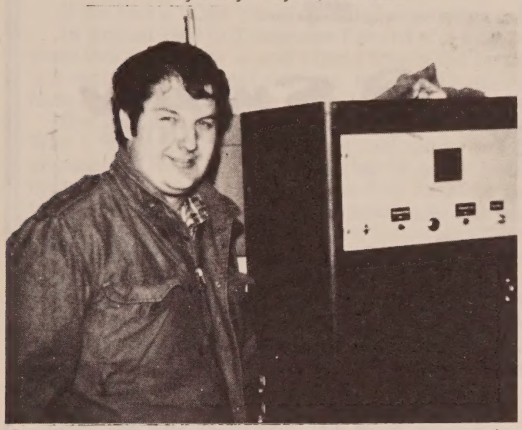
NEW REPEATER—COVERAGE FOR GREENEVILLE 220 GROUP

-by Larry Broyles, WB4NKM



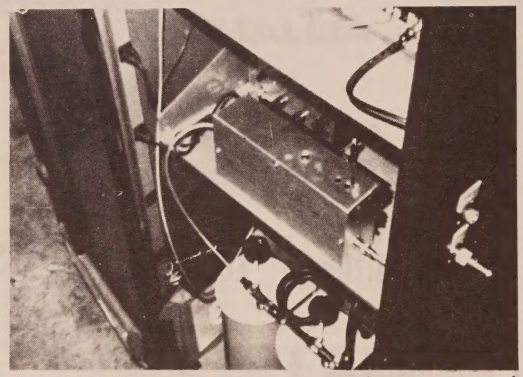
CLIFF HENSLEY, WB4NKL described by his cousin Larry, WB4NKM as a real "sharp cat" stands beside his attractive converted Motorola Micor repeater on 220 mhz. The smile, is that of relief after a successful trip up Camp Creek Bald Mt. at 4,844 feet.

Our 220 mhz repeater was doing a good job right up to the end. The old 223.34-224.94 machine had served us well. But we couldn't expect much more out of it with low power, and split antennas.

But the day finally arrived when my cousin Cliff Hensley, WB4NKL completed the conversion to 220 mhz. of our new Motorola Micor machine. We added a preamp, and amplifier, new duplexers and an eleven element coaxial colinear which is homebrew as is preamp and amp. The antenna was mounted at the 100 foot level on our tower, and the trip was made up the mountain with our sparkling new machine in its cabinet.

When we got it up and on the air, we were delighted with the additional coverage we immediately found. Stations in Asheville and surrounding areas are now able to get in.

Our machine sits on Camp Creek Bald Mountain, approxmately 10 miles South of Greeneville, Tennessee on the Tennessee/North Carolina State line and shares the site with a commercial service. Elevation is 4,844 feet above sea level. Coverage of the machine is about 150 miles and provides a good link between hams in North Carolina, Virginia and Tennessee, in operation 24 hours a day.



GREENEVILLE 220 MHZ repeater is a converted Motorola Micor machine with preamp, amplifier and duplexers. The 223.34-224.94 machine gives fantastic coverage from the 4,844 foot Camp Creek Bald Mt. near Greeneville, Tenn. The machine was built and operated by cousins Cliff Hensley, WB4NKL and Larry Broyles, WB4NKM.

CVRA FULL MEMBERSHIP PASSES 200 REPEATER MARK IN MARCH

A new mark was set for full membership repeaters in the CVRA in mid March. Our Full Membership files indicated 147 clubs or groups had joined representing some 203 repeaters in our 5 CVRA Districts plus Georgia and Missouri.

The previous all-time high was 183 repeaters at the end of 1979. Counting all repeaters on all bands in the 5 CVRA Districts, only North Carolina has a clear majority of membership with 59%, followed by West Virginia District with an outstanding 47% representative in only 2 months. The other three districts were showing full membership representation of 40% to 45%.

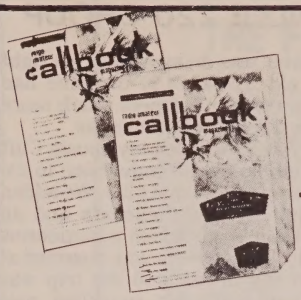
Full Membershiop chairman Bill Paige, WA4LWX said the early renewals this year were at an all-time high and he was very impressed by the early "record-breaking" memberships turned in.

Paige explained that memberships continue to come in throughout the year. Sometimes renewals are just late arriving due to forgetfulness of the repeater owners or some other reason. A clear majority in all 5 Districts would require almost 350 member repeaters, since the CVRA districts encompass over 700 repeaters in 5 States.

Lets do it this year! With two new Districts representing over 150 repeaters in our coverage area, we have a harder job to gain a clear majority, but with the work of users, members and especially Directors and Vice-Directors we can do it!

JOURNAL CLASSIFIEDS

Do you have a piece of equipment you would like to swap, buy, sell or trade. Let us place it in the Repeater Journal Classified Ads. Write down your ad, limit to 30 words if possible and send with $1.75 to Ken Holliday, WA4DYY, 1923 Halifax Court, High Point, N.C. 27260. Deadline for the August issue of the Journal is July 1.



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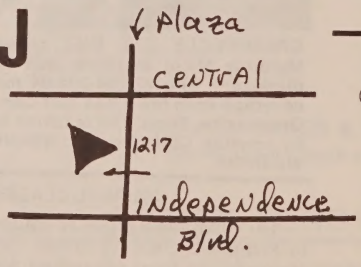

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A HAM SINCE 1913 — DOC JONES STILL ACTIVE ON 2

-by Lee Campbell, AE4V

If we had a "Can You Top This" department, Doc Jones would certainly and surely win the honors..

In August 1968 in Tennessee I heard of a man who was named Doc Jones. It took me 10 years to finally meet this fine fellow — and when I finally did I was much impressed. Doc has a great wife, and of course he is a real HAM — a real old time, bona fied ham. And we think we are hams. The people Doc got started in ham radio over his many years can't be counted on your hands and feet.

Doc was operating radios (wireless) in 1913 (They didn't really have ham licenses then). During World War I, the government came by and made him take his antennas down because of the war. As best as anyone can recollect, Doc built his first tube radio in East Tennessee. Although he had been dabbling in radio since 1913, he didn't get his first Amateur license until 1923 and has been licensed every since. He taught telegraphers code on the spark gap in indiana that could be heard a block away.

He was never paid by Western Union, however he knew the old telegraphers code and sounder boxes before he knew the International Code, and he operated the sets for them with ease.

Doc is retired from the railroad now and is a spry 87 years going. He is still active on 2-meters, working 19-79 and 87-27 FM (Johnson City repeaters), if you hear him on the air, give him a call sometimes.

Oh, by the way, he has been licensed 57 years and his call is W4ABX, and HE IS A HAM!

REPEATER OWNERS — USERS CHECK OUR INDEX CAREFULLY!

Once a year the Repeater Journal staff goes through the repeater indexes of all CVRA territory repeaters in an attempt to get the latest update possible on all repeaters, MEMBERS OF CVRA or not.

As we usually do, repeaters which have been listed as Proposed (p) or under construction (c) since the May 1979 list have been taken from the published list in the Repeater Journal, if we have no further information from anyone as to their status. The listings, however, remain on the master indexes which are distributed to each Director.

If you note a repeater missing from our index that you know is on the air, please notify your State Director of the Journal Editor immediately and give us the correct information.

If you see any repeaters with incorrect listings in our index, please let us know so we can get the lists correct.

Once again each Director and acting Director is asked to investigate all the repeater listings that have been removed to find their status. If the coordination is void, notify the Journal Editor to have the listing removed from the computer entirely.

If you know of any repeaters on the air in your area that might not be shown on our indexes, please notify your Director or the Journal editor.

The CVRA prides itself on keeping the most up-to-date listings of this area possible. Through your help over the past years, we have been able to achieve this. Again we ask for your assistance, and thank you in advance for any corrections or information you might be able to supply us. Directors'names and addresses are listed on the back cover. The Editor's name and address is on page 1.

HE IS A HAM! Are the best words to describe Doc Jones of Johnson City Tennessee. Doc has been licensed since 1923 and operating radio since 1913. W4ABX is a spry, witty fellow who always has a fantastic story to tell about his 87 years of life.

COLUMBIA ARC CO-SPONSORS SUPERWALK — 1980

The Columbia, South Carolina ARC co-sponsored the March of Dimes Superwalk — 1980 which was held in Columbia April 19.

Club members provided communications by way of the clubs 96-36 repeater and manpower tohandle communications. Also sponsoring the event was WCOS-AM radio station, which had many words of praise and gave the club much good public relations during the event.

According to club president, Bill, WB4TSB, they will continue such endeavors in order to maintain the high profile of Amateur Radio in the Columbia community.

PUTTING REPEATER ON TALL MT.

Continued From Page 9

WVVA-TV tower forms a dramatic backdrop for the new 89-49 repeater antenna atop East River Mr. Here club members put finishing touches on the hardline to the antenna. The TV tower is in West Virginia and repeater tower just a few feet away is in Virginia.

tually developed problems and was removed from the machine in early 1979.

In the meantime, during early 1978, the Kingsport (Bristol) repeater was moved from Bays Mountain to Holston Mountain near the WCYB-TV channel 5 site, a considerable increase in elevation, and a move of more than thirty air miles. Because of resulting interference, the repeater committee in Bluefield coordinated a new frequency in early 1979. The new frequency, located in the subband, was one of the first coordinated in the Southeast.

144.89/145.49 was selected because it was the closest to the 146 MHz segment and the repeater committee wanted as little problem as possible for area hams who had to convert the old 2 MHz rigs to the subband. The move in frequency was planned to coincide with a move to a better site, preferably near the TV station, but the site just couldn't be tied down at that time.

Then in late 1979, two persistent committee members were able to obtain permission to place the repeater at the site of WVVA-TV channel 6. Negotiations eventually produced a site at the highest point on the mountain, next to the TV tower.

After about three weeks of talks with two broadcasters (an FM station also had use of the site), permission was gained to tap on to the TV-FM transmitter building for power, at no cost to the club, and an abandoned microwave receiver shack was provided to house the repeater.

The 16/76 machine was removed from the air in December while talks were being completed for the new site. The repeater technical committee, under the able guidance of WD8OOR, then spent the next few months preparing for changing the site and frequency.

The old antenna was removed in February, and the decision was made to buy a new antenna. A Phelps-Dodge PD-200 Stationmaster antenna was ordered, and later that month the tower and electrical service were installed by the club members. The second week in March the antenna arrived and was mounted on the tower, the top approximately 45 feet above the ground.

Integration of the repeater and autopatch into a new all-aluminum cabinet was completed the first week in April, and the machine finally went on the air the next weekend.

The cabinet, which was donated by Appalachian Power Company, houses everything except emergency power. Space is provided for duplexer, power and RF amplifiers, receiver, transmitter, autopatch, and a tape recorder. The enclosure is approximately 30 inches square and 4 feet high, has two hinged doors, and is compartmentalized to provide maximum isolation.

Coverage of the repeater is generally within a 50-mile radius of Bluefield, and provides full coverage of Mercer County, West Virginia and mos of Bland County, Virginia.

Planned in the near future is voice identification on initial key-up. For the distant future (1-1½ years), the club hopes to move the repeater to a proposed commercial TV tower which will be constructed twelve miles southwest of the present site, also on East River Mountain. Elevation of the antenna would be raised from its present 3,730 feet AMSL to approximately 5,300 feet.

Should the tower be built and the 89/49 machine moved, autopatch would be transferred to another Bluefield repeater (415/015), and that machine would replace the 89/49 repeater at the present site. Coverage at the proposed 89/49 site would include parts of five states with regular mobile coverage, and its coverage area would include approximately 25,000 square miles minimum.

CVRA DECALS

Have you ordered your CVRA Decal yet? Send 25 cents for each decal desired, with a S.A.S.E. to: CVRA JOURNAL DECAL, Route 1, Box 806, Colfax, N. C. 27235.

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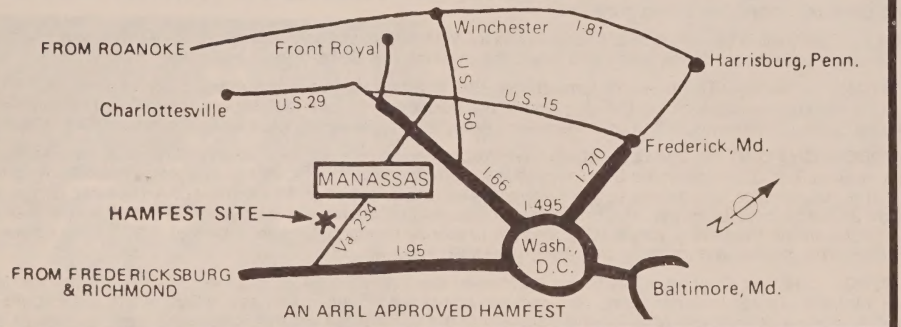

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NORTH CAROLINA DISTRICT NEWS ITEMS

Ken Woodard, WA4BVW, Director

HENDERSONVILLE — The WB4YAO/R repeater on 04-64 in known in Western North Carolina for some fantastic DXing. The machine has been linked with six meters for some time. Dan Kimball, trustee of the machine reports they will be installing a new Micor repeater to replace the existing Sensicon tube unit. He said this is the conclusion of a long awaited improvement to the complex repeater system. The new micor repeater will be factory equipped with battery backup operation. The six meter to six meter repeater and the six meter to two meter crosslink are fully operational and working well. They have also crosslinked with other similar repeater systems creating considerable excitement on 6-meter bandopenings. Interested 6-meter operators might get information from Dan or Martin Harris, WA4FOT. (Dan, WB4YAO)

CHARLOTTE . . . The Mecklenburg ARS, operator of the 34-94 machine in Charlotte have coordinated the frequency of 144.63-145.23 for their new proposed "tall tower" machine. They have also been coordinated 222.36-223.96 and 449.60-444.60 for two other proposed repeaters.

HENDERSON . . . Dan Kimball has coordinated the frequency of 025-625 with the CVRA for a second repeater for the Hendersonville area. It will be operated in addition to the 04-64 and six meter linking repeater presently on the air.

GREENVILLE . . . The Brightleaf Amateur Radio Club of Greenville has coordinated the frequency of 96-36 for another new repeater for the area. No official on-the-air date has been set for the club sponsored machine.

MORGANTON . . . Michael Fowler, WB4PML has requested and coordinated with the CVRA the sub band frequency of 144.57-145.17 for a new repeater in that area. Mike sez that the new machine will be on for the purpose of cross-connecting other repeaters and linking purposes.

GASTONIA . . . The Gaston County ARS of Gastonia has a CVRA coordinated frequency of 90-30 for a new machine in that area. No date has been set at press time as to when the machine will be on the air.

WILLIAMSTON . . . The WA4TKJ repeater formerly on 295-895 has moved to a sub band pair of 144.81-145.41. The machine, a full member repeater of the CVRA, planned the frequency change in February. The Wilson repeater is located about 7 miles South of Highway 17 out of Williamston. Autopatch facilities are planned in the near future. (CVRA file)

GREENSBORO/HIGH POINT . . . The Greensboro Civil Prepardeness repeater was taken off the air in early March. According to Chuck Bino, K4CJZ, trustee, the Civil Preparedness office has cut funds, due to budget cutbacks forcing the group to turn off the machine, or pay expenses themselves. Meanwhile, the High Point, WA4ZXA repeater group presently operating on 265-865 have been experiencing massive intermod problems with a commercial FM station at their location. They have received the frequency from K4CJZ and are presently completing coordination of 72-12 for a frequency shift from 265-865. The change was made in Mid April. (K4MOB, Wayne)

GREENSBORO . . . Robert Thigpen, KB4PC has purchased the 223.22-224.82 repeater from Danny Turner, WA4YGD and moved it from Burlington to Greensboro. Bob said he wanted a RTTY type repeater on 220 in the Greensboro area. He said he hopes to find a site capable of delivering a signal into the Winston-Salem area to enable a large number of 220 mhz. RTTY enthusiasts a link with Greensboro area RTTY enthusiasts. The machine was on the air for a week, before heavy winds knocked down Bob's tower containing the repeater antenna. He plans to get it back on as soon as possible. There are over 35 RTTY operators on 220 mhz. within a 30 mile radius of Winston and Greensboro.

CHIMNEY ROCK . . . The North Carolina Director of CVRA has approved the frequency of 735-135 to WA4KNI for repeater in Chimney Rock (SE of Hendersonville). No other information is available on this proposed repeater.

RALEIGH . . . Another sub bad frequency has been coordinated to H. K. Martin, N4BEA for a proposed new repeater for the Raleigh area. The CVRA Director approved the frequency of 144.89-145.49 for the machine.

TRYON . . . Keith Henson, WB4BYH, a Tennessee transplant, is planning to place a 220 mhz. repeater on the air in Tryon. Keith who was very active in the Knoxville area with 220 mhz. reports his machine will be on 222.86-224.46. No target date for completion has been set as of yet.

HAYESVILLE . . . Phil Mullins, WD4KTG, reports he plans a repeater in Hayesville (50 miles east of Tennessee line, 10 miles north of S.C. line) in Western N.C. The machine to operate on 69-09 will be a local machine with autopatch.

EDEN . . . A new repeater is planned for the Eden area. Phil Duncan, WD4DIP said he plans to get his machine going on 99-39 in the near future. This machine will be a second one for Eden, joining the 84-24 repeater there.

NEWTON . . . (South of Hickory) R. W. Miller, N4AWV, and a group of amateurs plan a new machine in the future. The machine complete with autopatch of facilities for the Newton area will be operating on the sub band frequency of 144.83-145.43.

CHARLOTTE . . . Diego Torres, WA4TPZ reportedly has his 220 mhz. machine on the air in Charlotte. The machine, coordinated for 223.00-224.60 had been proposed earlier. The Journal was unable to reach Diego or other Charlotte 220 operators before press time to confirm the machine being on or other information about it.

GREENSBORO . . . The WR4AOD 16-76 Greensboro repeater is now working much better these days. The group ran 500 feet of new ¾-inch hardline up the tower and moved the new G.E. machine into its new building under the tower, shortening the coax by some 250 feet. The repeater is located in Summerfield on an old TV tower.

CAESAR WASN'T THERE BUT TIDE WATER ARES WAS

-by Neil Newstein, WD4RDF

The Ides of March (March 15, 1980) didn't live up to it's reputation as a day of disaster, at least not in Va. Beach, Va. Instead it was a day of fun and excitment as the seventh running of the 26 mile "Shamrock Marathon" was held. Providing comprehensive communication services for the second year in a row were A.R.E.S. members from the Tidewater area of Virginia. Coordinated by the Va. Beach A.R.E.S. and VA. BEACH E.C. Neil Newstein WD4RDF, the group provided race results to the local media, information and communication amongst race officials, and most importantly emergency services for the para medics and ambulances situated at the mid point of the race.

GRADY KA4CRJ — Motorcycle mobile pauses a moment to coordinate information during the "Shamrock Marathon" which was held at Virginia Beach, Va. in March. Grady joined several other unusual mobiles, including some bicyclemobiles in providing communications.

The latter of those duties resulted in a number of calls as approximately 15 runners had one sort of minor medical problem or another. (last year we did have one participant with a probable heart attack). A.R.E.S. members also served as pick up drivers, bringing back to the starting line, runners whose estimation of their abilities were larger than the reality of 26 long miles.

Net control was operated from a hotel room furnished by race officials at the headquarters, with a gain antenna 7 stories up on the roof. All communications were on 52 simplex for the main race. However, we also provided communication for a 5 mile and a two mile race, which were handled on 76 simplex.

Since the race was run over a variety of terrain, including dirt trails and the Va. Beach "Boardwalk", Hams used "bike portable" handitalkies and even a motorcycle mobile, in addition to the more traditional mobile equipment.

An interesting facit to the race was our connection with the local radio station covering the race live. It has put their traffic helicopter in the air to cover the race, yet the ham stationed in the broadcast booth with the D.J. was able to provide more immediate information than either the helicopters or their own reporters. (not directly over the air of course).

All in all it was a lovely and exciting day for all concerned. Next year some of us have decided to do the race as "runner mobiles" at least for the first 1½ miles. Hams participating were WD4RDF/ncs, WD4GDB/ast ncs, WA4KXV/asst ncs, W8RJL, N4NP, W4SYF, WA1SCS, WA4CFU, WD4PSM, WD0GFD, N4CRN, WA4MXC, WB4YZS, KB4JI, N2AEY, KB4WT, WB6THE, WA1QJW, AA4CK, WB4SFY, WB6WSA, WB4NEE, WA1WXL N4SD, WA4AXY, WB4UHX, KA4LSD, WA4WPO, WB6THE, N4BFI, W4HIR, WD4AHX, N4CAV, and KA4CRJ

W. VA. GOVERNOR ADDRESSES HAM GROUP VIA 2-METERS

-by William C. Hunter, K8BS

The Plateau Amateur Radio Association had a surprise at their Dinner meeting last March. The event was held in Oak Hill, W. Virginia, to recognize the County Commission and others who assisted the club in getting their new 19-79 repeater (WD800J) on the air.

Unknowing to the club membership, John Witt, W8OQC made an appointment with John D. Rockefeller IV, Governor of West Virginia to address the group via Amateur Radio. (John incidentally, is the mayor of Fayetteville, W. Va.)

At the appointed time, Butch McClung, KA8BNR and Bill Hunter, K8BS met the Governor at his Mansion in Charleston and escorted him to the State Office of Emergency Services Emergency Operating Center in the Capitol Building. Contact with W8OQC, John who was at the dinner, was made through the 19-79 repeater. Then the microphone was turned over to Governor Rockefeller.

The Governor in his unique speech through Amateur Radio, praised the ham community for their services to the citizens of West Virginia and the world, especially in times of natural disasters. He also congratulated everyone involved in the establishment of the new repeater.

Imagine the shock and surprise to everyone at the dinner, as well as those monitoring 19-79 that night, to all of a sudden hear the Governor's voice.

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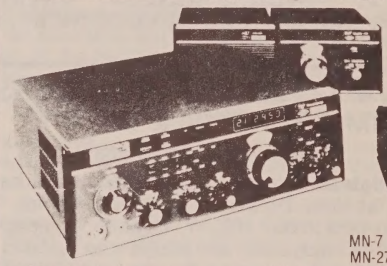

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NB-7 Noise blanker	90.00
SL-300 300 Hz crystal filter	52.00
SL-500 500 Hz crystal filter	52.00
SL-1800 1.8 KHz crystal filter	52.00
SL-6000 6 KHz crystal filter	52.00
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MN-2700 160-10m 1Kw matcher	279.00
B-1000 4:1 balun	24.95
WH-7 160-6m wattmeter	89.00
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385-0004 TR-7 service manual	30.00
R-7 160-10m receiver	1100.00
DR-7 Digital readout/gen cov board	195.00
R-7/DR-7 Rcvr w/dig. gen coverage	1295.00
MS-7 Speaker	36.00
NB-7A Noise blanker	90.00
SL-300 300 Hz crystal filter	52.00
SL-500 500 Hz crystal filter	52.00
SL-1800 1.8 KHz crystal filter	52.00
SL-4000 4 KHz crystal filter	52.00
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DL-300 300 w dry dummy load	24.95
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TV-3300-LP 1Kw 80-10m low-pass	26.60
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1340 UV-3 2m FM Xcvr	595.00
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TENNESSEE NEWS
MEET OUR REPEATERS

-by Bob May, K4SE

The repeater featured in this issue's Tennessee news column is the 147.99/39 WB4SQC/Repeater in Jonesboro. We are greatly indebted to Mary, KA4EXP, who wrote the article. Future articles should be sent to the Tennessee News Editor Bob May, K4SE, P.O. Box 30, Jonesboro, Tennessee 37659. Send in your articles and see your repeater information printed in the "CVRA Journal." Don't wait! Don't hesitate!

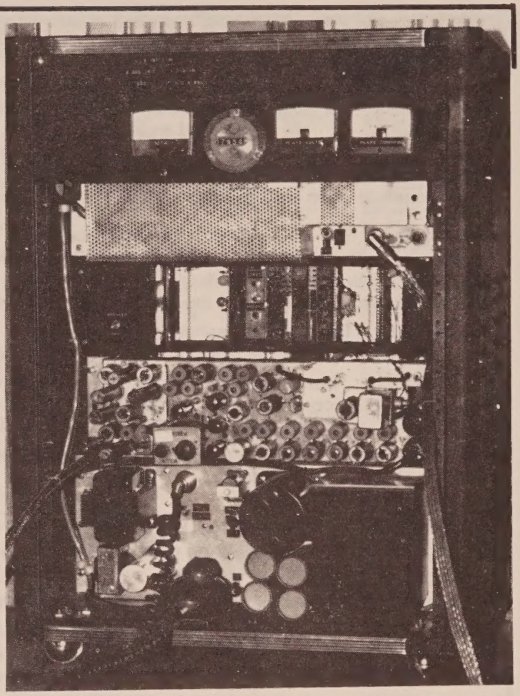
THE JONESBORO, TENNESSEE, 147.99/39 REPEATER

-by Mary Biggs, KA4EXP

The Jonesboro Repeater Group got started in September, 1978, when Benny Peterson (WB4SQC) and Rick Long (WD4CEP) purchased a 1954 Motorola unit, complete with all heartaches at the Shelby hamfest. The repeater went on the air in December, 1978, after much massaging, cussing and other aberrations. It operates on the CVRA coordinated frequency 147.99/39 and is located atop a 2100 foot high knob in Jonesboro. The antenna was originally on a 40 foot tower in Benny's back yard which "grew" to 70 feet in August, 1979.

In January, 1979, a Sensicon receiver was put into service which relieved emotional stresses somewhat. And in July, 1979, a commercial duplexer was added which improved the repeater's range. The repeater ID'er was built around a RAM programmable memory by Frank (W4HAY) and Rick (WD4CEP). This ID'er can be programmed with any typeof hand key, bug, etc. This makes it quite easy to program the "howdy" (or whatever else you may have heard) ID!

For the 1979 Christmas season, the repeater group mounted a ten foot wide star on top of the antenna tower which drew many comments from the residents of the town of Jonesboro!



THE JONESBORO 99-39 repeater cabinet. Lot of tubes for the Motorola Sensicon, but it works great for the Jonesboro Repeater Group. The machine, on the air since December 1978 is located on a 2,100 foot high knob in Jonesboro.

Because there is no repeater in the Johnson City and Washington County area with emergency power capabilities, the repeater group is now in the process of building a new repeater of solid state design with total battery backup. This repeater will be based on commercially available sub-assemblies and homebrew circuits and will be capable of 15 or 50 watts. Under emergency power the repeater will be able to operate at 50 watts for approximately 12 hours with a 20% transmit duty cycle or for about 27 hours at 15 watts. As soon as the new repeater is on the air an autopatch will be added.

The Jonesboro Repeater Group consists of Benny (WB4SQC), Trustee; Rick (WD4CEP), Chief Engineer; Mary (KA4EXP), Treasurer; and Frank "Buggsy" (W4HAY), Chief Flunky. Ed. note: That's what KA4EXP said to print (she's W4HAY's XYL)!

The Jonesboro Repeater Group welcomes you to use the "friendliest repeater" in East Tennessee!

BLACK DIAMOND ARC ELECTS OFFICERS FOR 1980 SEASON

-by Bob F. Myers KA8 CVI

The Black Diamond Amateur Radio Club of Beckley, West Virginia, elected new officers for the coming year in March.

President of the group is Dean Phoebus, KA8ENI; Vice President, Bob Freeland; Secretary, Bob Myers, KA8CVI and Treasurer, Suzy Barret. Heading up club activities is Charles Marlow, WB8CNN; Jack Slygh, W8DPQ and Ray Mrmandy, WB8WJL.

Trustees of the club affiated repeater WR8AKZ/8 is Bill Ormandy, K8BO and Bill Elkin, WA8WDK. The Black Diamond ARC meets every 3rd Thursday of the month. Their net is held on the 25-85 Flat Top repeater each Monday evening at 2100. Net manager is Dean Phoebue, KA8ENI with various club members acting as net control each week.

VIRGINIA DISTRICT NEWS ITEMS

Carter Cogle, K4ARO, Director

VIRGINIA DISTRICT Ramblings . . . The flurry of repeater coordination last quarter which resulted from Quiet Zone rumblings has ceased. The scare of the proposed Quiet Zone docket made a lot of repeater groups go ahead and get things in the mill quickly, now things have slowed down considerably. This may be a reflection of the National mood and the state of the economy . . . . . We have noted an increase in 440 type repeaters for Virginia this quarter, with several on the air already. We will also be picking up a couple of 220 repeaters soon. Understand they are working on one in Danville, and another possibly coming on this quarter near Lunchburg . . . . With two meter frequencies getting in short supply in lots of areas, hopefully clubs and individuals are looking to higher bands with less clutter. . . . (Carter, K4ARO)

RICHMOND . . . The 34-94 RARC repeater messages of club meetings, information and Amateur activities are getting a good workout. Press 7-7-7 on touchtone pad. Rick Cook. AB4U also comes on the repeater at 2130 Sunday evening with latest news and ARRL bulletins. The lovely voice you hear on the tapes is Janet Peckinpaugh, Channel 12 Weathergirl, who returns after 6 months recovery from serious auto accident. (James, K4OJE)

RICHMOND . . . The 04-84 Telephone Pioneers repeater is back on 24 hours a day after much revamping of equipment and GE Prog line installation. Additional antenna and receiver improvements are still in progress. (Jim, K4OJE)

LYNCHBURG . . . Herman reports his new 440 repeater is now on the air. WB4DBB a Durham, N.C. transplant sez the machine is easily accessed in the Lynchburg area. The 449.35-444.35 machine also on touchtone command links with the 222.34-223.94 repeater in Durham. (Herman, WB4DBB)

VIRGINIA BEACH . . . Wally has the Virginia Beach 440 repeater on the air now. The machine formerly listed as proposed in Chesapeake is now operational. The repeater is on 449.95-444.95 and reportedly doing well in the area with coverage. (Wally, WA4KXV)

PORTSMOUTH . . . Henry Hassell, K4LMY has put on a new 440 repeater to join his 25-85 two meter repeater in the Portsmouth area. The new machine operates 449.25-444.25.

ROANOKE . . . Lloyd Dyson has put his call on a new 440 repeater in the Roanoke-Salem area. The new machine is operating on 447.75-442.75. No other information is available at press time of this Journal.

COVINGTON . . . Danny Hill, WA4HTI adds another repeater to his Full Membershipo roster for the CVRA. In addition to the 22-82 machine, he now has a 440 machine operating on 447.25-442.25.

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(By City Index On Following Pages)

TWO METERS

4.51 /5.11	HIGH POINT	NC
	KNOXVILLE	TN
4.53 /5.13	GALAX	VA
4.57 /5.17	BUTNER	NC
	MORGANTON	NC
4.59 /5.19	WINSTON-SALEM	NC
4.61 /5.21	GASTON	SC
4.63 /5.23	CHARLOTTE	NC
4.65 /5.25	MT PISGAH	NC
4.66 /5.26	GREENSBORO	NC
4.69 /5.29	TRINITY	NC
4.70 /5.30	BRYSON CITY	NC
4.73 /5.33	MT AIRY	NC
	PARSONS	WV
4.75 /5.35	CHARLOTTE	NC
	RALEIGH	NC
	BLAND	VA
	FRONT ROYAL	VA
4.77 /5.37	N. WILKESBORO	NC
4.79 /5.39	SAURATOWN MT	NC
4.81 /5.41	LEXINGTON	NC
	WILLIAMSTON	NC
4.83 /5.43	NEWTON	NC
	ALEXANDRIA	VA
	MORGANTOWN	WV
4.85 /5.45	NEWPORT	NC
	OAK RIDGE	TN
	WELCH	WV
4.87 /5.47	LILLINGTON	NC
4.89 /5.49	RALEIGH	NC
	HENDERSONVILLE	TN
	MEMPHIS	TN
	BLUEFIELD	VA
	BLUEFIELD	WV
6.01 /6.61	GREENSBORO	NC
	NEW BERN	NC
	GRNVLE/CSRS HD	SC
	MYRTLE BEACH	SC
	CHATTANOGA	TN
	KNOXVILLE	TN
6.01 /7.51	MEMPHIS	TN
6.01 /6.61	NASHVILLE	TN
	BRUMLEY MT	VA
	LYNCHBURG	VA
6.01 /6.01	SPENCER	WV
6.025/6.625	HENDERSONVILLE	NC
	LAURINBURG	NC
	NEW MARKET	VA
6.04 /6.64	HENDERSONVILLE	NC
	RALEIGH	NC
	WINSTON-SALEM	NC
	SUMTER	SC
	MADISON	TN
	MEMPHIS	TN
	RICHMOND	VA
	ELKINS	WV
	HUNTINGTON	WV
6.055/6.655	CONCORD/KANNAP.	NC
6.055/6.065	ALEXANDRIA	VA
6.07 /6.67	BURLINGTON	NC
	FOREST CITY	NC
	BRISTOL	TN
	COOKEVILLE	TN
	LAFOLLETTE	TN
	NASHVILLE	TN
	BARREN SPRINGS	VA
	LEXINGTON	VA
	WILLIAMSBURG	VA
	RAVENSWOOD	WV
6.085/6.685	GRIFTON	NC
	STATESVILLE	NC
	ALEXANDRIA	VA
6.085/7.955	MORGANTOWN	WV
6.10 /6.70	DUNN	NC
	GREENVILLE	SC
	LANCASTER	SC
	GREENEVILLE	TN
	MANCHESTER	TN
6.10 /6.70	MEMPHIS	TN
	UNION CITY	TN
	DAN/WHT.OAK MT	VA
	NORFOLK	VA
6.115/6.715	SPRING LAKE	NC
	STERLING	VA
6.13 /6.73	SALISBURY	NC
	WILMINGTON	NC
	N. AUGUSTA	SC
	KNOXVILLE	TN
	LEBANON	TN
	MEMPHIS	TN
	HAMPTON	VA
	ALDERSON	WV
6.145/6.745	DILLON	SC
6.16 /6.76	ASHVL/MT PISGAH	NC
	GREENSBORO	NC
	GRIFTON	NC
	CHARLESTON	SC
	COLUMBIA	SC
	KINGSPORT	TN
	NASHVILLE	TN
	CHARLOTTESVILLE	VA
	FOREST	VA
	HUNTINGTON	WV
	MORGANTOWN	WV
	WHEELING	WV
6.19 /6.79	LEVEL CROSS	NC
	CHARLESTON	SC
	SASSAFRAS MT	SC
	SWAINSBORO(GA)	SC
	TOCCOA(GA)	SC
	CHATTANOGA	TN
	JOHNSON CTY	TN
6.19 /7.51	MEMPHIS	TN
6.19 /6.79	NASHVILLE	TN
	CHESAPEAKE	VA
	FAIRFAX	VA
	OAK HILL	WV
6.205/6.805	GASTONIA	NC
6.22 /6.82	DURHAM	NC
	ROARING GAP	NC
	WILMINGTON	NC
	GRNVLE/PARIS MT	SC
	LYONS(GA)	SC
	LAKE CITY	TN
	MEMPHIS	TN
	WINCHESTER	TN
	COVINGTON	VA
	WINCHESTER	VA
	CHARLESTON	WV
	CLARKSBURG	WV
6.235/6.835	ASHEVILLE	NC
	WADESBORO	NC
6.25 /6.85	GOLDSBORO	NC
	HICKORY/BRT. MT	NC
	REIDSVILLE	NC
	FLORENCE	SC
	LAURENS	SC
	SUMMERVILLE	SC
	COVE MTN	TN
	MEMPHIS	TN
	NASHVILLE	TN
	PORTSMOUTH	VA
	BKLY/FLAT TOP MT	WV
	BUCKHANNON	WV
6.28 /6.88	RALEIGH	NC
	SHELBY	NC
	COLUMBIA	SC
	SAVANNAH(GA)	SC
	BRISTOL	TN
	MEMPHIS	TN
	NASHVILLE	TN
	OAK RIDGE	TN
	BRISTOL	VA
	RICHMOND	VA
	ROANOKE/SALEM	VA
	CHARLESTON	WV
6.31 /6.91	AHOSKIE	NC
	ASHEVILLE	NC
	FAYETTEVILLE	NC
	LEXINGTON	NC
	WHITE HALL	SC
	POPLAR BLUFF(MO)	TN
	SAVANNAH	TN
	SHORT MT.	TN
	BLACKSBURG	VA
	FARMVILLE	VA
	JONESVILLE	VA
	TYSONS CORNER	VA
	COTTAGEVILLE	WV
	FAIRMONT	WV
	MCMECHEN	WV
6.325/6.925	CHARLOTTESVILLE	VA
	DANVILLE(DCC)	VA
6.34 /6.94	ASHEVILLE	NC
	BURGAW	NC
	CHARLOTTE	NC
	DURHAM	NC
	MANTEO	NC
	CHARLESTON	SC
	COLUMBIA	SC
	GREER	SC
	KNOXVILLE	TN
	MEMPHIS	TN
	MERRYVILLE	TN
6.34 /6.94	NASHVILLE	TN
	HAMPTON	VA
	RICHMOND	VA
	ROANOKE	VA
	NEW MARTINSVLLE	WV
6.34 /9.34	RICHWOOD	WV
6.34 /6.94	WEIRTON	WV
6.355/6.955	ROCKINGHAM	NC
6.37 /6.97	KINGS MTN	NC
	MT AIRY	NC
	SMITHFIELD	NC
	ANDERSON	SC
	FLORENCE	SC
	SAVANNAH(GA)	SC
	ALTAMONT	TN
	KNGSPT/BAYS MT	TN
	MEDINA	TN
	OAK RIDGE	TN
	MANASSAS	VA
6.37 /7.97	STAUNTON	VA
6.37 /6.97	VIRGINIA BEACH	VA
	LOGAN	WV
	PARKERSBURG	WV
6.385/6.985	ALBEMARLE	NC
	ROANOKE	VA
6.40 /7.00	HIGH POINT	NC
	JACKSONVILLE	NC
	MARION	SC
	PICKENS	SC
6.40 /7.54	KNOXVILLE	TN
6.40 /7.00	MEMPHIS	TN
	SUFFOLK	VA
	ST ALBANS	WV
6.415/7.015	BLUEFIELD	VA
	BLUEFIELD	WV
6.43 /7.03	ERWIN	NC
	ROCK HILL	SC
	BLACKSBURG	VA
6.445/7.045	ROBBINSVILLE	NC
6.46 /7.06	CHARLOTTE	NC
	ELIZABETH CITY	NC
	MEMPHIS	TN
	SOUTH BOSTON	VA
	PRINCETON	WV
6.475/7.075	BURLINGTON	NC
6.655/6.055	BROWNSVILLE	TN
	UNION CITY	TN
6.685/6.085	WAVERLY	TN
6.715/6.115	PULASKI	TN
6.745/6.145	NEWBERN	TN
7.135/7.735	ALAMO	TN
7.255/6.835	LEXINGTON	SC
7.30 /7.90	MONROE	NC
7.60 /7.00	BRISTOL	TN
	CHATTANOGA	TN
	CLARKSVILLE	TN
	TERRA ALTA	WV
7.615/7.015	SUMTER	SC
	NASHVILLE	TN
	FREDRICKSBURG	VA
7.63 /7.03	GREENSBORO	NC
	ROANOKE RAPIDS	NC
	FAYETTEVILLE	TN
	HENDERSONVILLE	TN
	MEMPHIS	TN
	MORRISTOWN	TN
	SPRINGFIELD	TN
	WAYNESBORO	VA
	MULLENS	WV
7.645/7.045	NORFLOK	VA
7.66 /7.06	MACO	NC
	SUMTER/SHAW	SC
	GREENEVILLE	TN
	SHELBYVILLE	TN
7.67 /7.09	MEMPHIS	TN
7.675/7.075	GREENVILLE	SC
	KNOXVILLE	TN
	CRIMORA	VA
7.69 /7.09	GREENVL/ESTN NC	NC
	HAYESVILLE	NC
	ORANGEBURG	SC
	SPARTANBURG	SC
	SPARTA	TN
	BRIARPATCH MT	VA
7.705/7.105	MONROE	NC
	JOHNS MT/EVNGTN	VA
	BRIDGEPORT	WV
7.72 /7.12	GAST/SPCR MT	NC
	HIGH POINT	NC
	ROCKY MOUNT	NC
	N. AUGUSTA	SC
	COLUMBIA	TN
	MEMPHIS	TN
	OAK RIDGE	TN
	CULPEPPER	VA
	BRIDGEPORT	WV
7.735/7.145	CHIMNEY ROCK	NC
7.735/7.135	CHERAW	SC
7.75 /7.15	MORGANTON	NC
	RALEIGH	NC
	MEMPHIS	TN
	NASHVILLE	TN
	OAK RIDGE	TN
	PETERSBURG	VA
	TAZEWELL	VA
7.765/7.165	GREENWOOD	SC
7.78 /7.18	MT AIRY	NC
	SANFORD	NC
	CAROWINDS	SC
	DORCHESTER	SC
	CLEVELAND	TN
7.78 /7.17	MEMPHIS	TN
7.78 /7.18	NASHVILLE	TN
	DUBLIN	VA
7.795/7.195	LAKE TOXAWAY	NC
7.81 /7.21	GREENSBORO	NC
	GREENVILLE	NC
	LITTLE MT	SC
	COOKEVILLE	TN
	JACKSON	TN
	MCLEAN	VA
7.825/7.225	HILLSBOROUGH	NC
	MORRISTOWN	TN
7.84 /7.24	EDEN	NC
	FRANKLIN	NC
	PINE BLUFF	NC
	SHELBY	NC
	COLUMBIA	SC
	GALLITIN	TN
	MEMPHIS	TN
	LYNCHBURG	VA
	PETERSBURG	VA
	WOODBRIDGE	VA
7.855/7.255	ASHEBORO	NC
	SHENANDOAH	VA
	MARTINSBURG	WV
7.87 /7.27	BENSON	NC
	GASTONIA	NC
	WAYNESVILLE	NC
	CHARLESTON	SC
	LONG MT	SC
	JOHNSON CTY	TN
	MEMPHIS	TN
	NASHVILLE	TN
	GUM SPRING	VA
	SCOTT DEPOT	WV
7.885/7.285	LYMAN	SC
	MARTINSVILLE	VA
7.90 /7.30	GASTONIA	NC
	JACKSONVILLE	NC
	SYLVA	NC
	KNOXVILLE	TN
	MEMPHIS	TN
	NASHVILLE	TN
	BERRYVILLE	VA
	CLIFTON FORGE	VA
	FRANKLIN	VA
	GRUNDY	VA
	HUNTINGTON	WV
	PENNSBORO	WV
7.915/7.315	UNION CROSS	NC
	ALEXANDRIA	VA
7.93 /7.33	FAYETTEVILLE	NC
	LENOIR	NC
	COLUMBIA	SC
	CROSSVILLE	TN
	COLE MTN	VA
	KLMNRK/SALUDA	VA
7.945/7.345	SHELBY	NC
	NASHVILLE	TN
	DANVILLE	VA
7.96 /7.36	BOONE	NC
	FRANKLIN	NC
	GREENVILLE	NC
	LUMBERTON	NC
	COLUMBIA	SC
	MEMPHIS	TN
	NASHVILLE	TN
	PARIS	TN
	PARKERSBURG	WV
7.975/7.375	BURNSVILLE	NC
	NASHVILLE	TN
	LYNCHBURG	VA
7.99 /7.39	CHARLOTTE	NC
	EDEN	NC
	EDENTON	NC
	DAYTON	TN
	JONESBORO	TN
	MEMPHIS	TN
	NASHVILLE	TN
	PETERSBURG	VA
8.03 /7.33	TOCCOA(GA)	SC

NORTH CAROLINA REPEATERS

TWO METERS

AHOSKIE	WR4AFB	146.31	146.91	N	PA
ALBEMARLE	WR4BBX	146.385	146.985		
ASHEBORO	WR4AOE	147.855	147.255	N	PA
ASHEVILLE	WA4QCO	146.235	146.835		
ASHEVILLE	WB4PLA	146.31	146.91		A
ASHEVILLE	WA4QCO	146.34	146.94	N	
ASHVL/MT PISGAH	WA4BVW	146.16	146.76		
BENSON	WR4ARL	147.87	147.27	N	PA
BOONE	WR4ATQ	147.96	147.36	N	PA
BRYSON CITY	K4BBF	144.70	145.30	N	P
BURGAW	K4LZY	146.34	146.94		
BURLINGTON	WR4AKY	146.07	146.67	N	
BURLINGTON	W4VGZ	146.475	147.075		EA
BURNSVILLE	WA4LLR	147.975	147.375	N	
BUTNER	WA4IZG	144.57	145.17	N	P
CHARLOTTE	WR4AEU	144.63	145.23	N	P
CHARLOTTE	WB4HTR	144.75	145.35	N	P
CHARLOTTE	WR4AEU	146.34	146.94	N	A
CHARLOTTE	WR4ALO	146.46	147.06	N	A
CHARLOTTE	WR4AWQ	147.99	147.39		PA
CHIMNEY ROCK	WA4KNI	147.735	147.145	N	P
CONCORD/KANNAP.	K4CEB	146.055	146.655		A
DUNN	WB4FXM	146.10	146.70		
DURHAM	WA4WTX	146.22	146.82		
DURHAM	WA4BFT	146.34	146.94		
EDEN	WR4AZX	147.84	147.24	N	
EDEN	WD4DIP	147.99	147.39	N	P
EDENTON	WA4JOK	147.99	147.39	N	C
ELIZABETH CITY	WA4VTX	146.46	147.06	N	A
ERWIN	WR4ALY	146.43	147.03	N	
FAYETTEVILLE	WR4ANN	146.31	146.91		A
FAYETTEVILLE	W4LPL	147.93	147.33		O
FOREST CITY	WR4AHA	146.07	146.67	N	A
FRANKLIN	WB4YAO	147.84	147.24		
FRANKLIN	N4AC	147.96	147.36	N	
GAST/SPCR MT	WR4ATP	147.72	147.12		A
GASTONIA	K4ZFD	146.205	146.805	N	L
GASTONIA	WD4KGM	147.87	147.27	N	
GASTONIA	WR4	147.90	147.30	N	P
GOLDSBORO	K4CYP	146.25	146.85		A
GREENSBORO	N4AZM	144.66	145.26	N	
GREENSBORO	K4SNI	146.01	146.61		A
GREENSBORO	WD4IPZ	147.63	147.03		A
GREENSBORO	WR4ANL	147.81	147.21	N	
GREENVILLE	WD4JPQ	147.81	147.21	N	P
GREENVILLE	WR4	147.96	147.36	N	P
GREENVL/ESTN NC	W4GDF	147.69	147.09		A
GRIFTON	W4NBR	146.085	146.685		C
GRIFTON	WR4ABP	146.16	146.76		
HAYESVILLE	WD4KTG	147.69	147.09		P
HENDERSONVILLE	WB4YAO	146.025	146.625		P
HENDERSONVILLE	WB4YAO	146.04	146.64		L
HICKORY/BRT. MT	WR4ACM	146.25	146.85	N	
HIGH POINT	N4XO	144.51	145.11	N	P
HIGH POINT	K4AZA	146.40	147.00		PA
HIGH POINT	WA4ZXA	147.72	147.12		PA
HILLSBOROUGH	WA4WTX	147.825	147.225		A
JACKSONVILLE	WD4FVO	146.40	147.00	N	
JACKSONVILLE	WR4ATW	147.90	147.30		
KINGS MTN	WR4AYN	146.37	146.97		
LAKE TOXAWAY	WR4AGH	147.795	147.195		
LAURINBURG	WR4AOX	146.025	146.625	N	
LENOIR	WR4ARG	147.93	147.33		
LEVEL CROSS	K4VUW	146.19	146.79		
LEXINGTON	WD4NTE	144.81	145.41	N	P
LEXINGTON	WR4BDA	146.31	146.91		PA
LILLINGTON	WA4FKI	144.87	145.47	N	
LUMBERTON	WR4BDQ	147.96	147.36	N	A
MACO	K4OVA	147.66	147.06	N	
MANTEO	W4PCN	146.34	146.94		PA
MONROE	K4BGU	147.30	147.90	N	
MONROE	WR4BBN	147.705	147.105		A
MORGANTON	WB4PML	144.57	145.17		LP
MORGANTON	K4AI	147.75	147.15		
MT AIRY	AA4RW	144.73	145.33	N	
MT AIRY	WB4UJH	146.37	146.97		
MT AIRY	WA4CQK	147.78	147.18	N	
MT PISGAH	WA4COS	144.65	145.25	N	P
N. WILKESBORO	K4ITL	144.77	145.37		
NEW BERN	WD4JMS	146.01	146.61		PA
NEWPORT	K4GRW	144.85	145.45		P
NEWTON	N4AWV	144.83	145.43	N	P
PINE BLUFF	WR4BAR	147.84	147.24	N	
RALEIGH	W4PNN	144.75	145.35	N	PR
RALEIGH	N4BEA	144.89	145.49	N	P
RALEIGH	WR4ACF	146.04	146.64		
RALEIGH	WR4AOE	146.28	146.88		
RALEIGH	WR4AOE	147.75	147.15		PA
REIDSVILLE	K4YFT	146.25	146.85	N	
ROANOKE RAPIDS	K4PUV	147.63	147.03		
ROARING GAP	WB4PZA	146.22	146.82		
ROBBINSVILLE	WR4BAN	146.445	147.045		
ROCKINGHAM	WA4ULA	146.355	146.955		
ROCKY MOUNT	WD4HIG	147.72	147.12		A
SALISBURY	W4EXU	146.13	146.73		
SANFORD	WB4EJJ	147.78	147.18	N	A
SAURATOWN MT	WB4SNA	144.79	145.39	N	CL
SHELBY	WR4ABF	146.28	146.88		
SHELBY	WR4AWU	147.84	147.24	N	
SHELBY	WR4ABF	147.945	147.345		A
SMITHFIELD	WR4BBO	146.37	146.97	N	
SPRING LAKE	WR4BCA	146.115	146.715	N	
STATESVILLE	WR4AZS	146.085	146.685		PA
SYLVA	KA4V	147.90	147.30	N	
TRINITY	WD4KUN	144.69	145.29	N	P
UNION CROSS	WB4RGV	147.915	147.315	N	
WADESBORO	W4USH	146.235	146.835	N	
WAYNESVILLE	N4SM	147.87	147.27		PA
WILLIAMSTON	WA4TKJ	144.81	145.41		
WILMINGTON	WR4AVF	146.13	146.73		
WILMINGTON	WR4AHL	146.22	146.82		
WINSTON-SALEM	W4HKB	144.59	145.19	N	P
WINSTON-SALEM	WA4GIC	146.04	146.64		A

10-METERS

NEWPORT	K4GRW	29.56	29.66		P

220 MHZ

ASHVL/MT PISGAH	WR4AEV	222.34	223.94		
CHARLOTTE	WA4TPZ	222.00	223.60	N	C
CHARLOTTE	WR4AEU	222.36	223.96	N	P
CHERRYVILLE	WB4UDS	223.20	224.80	N	
FAYETTEVILLE	WR4ADK	222.42	224.02		
GREENSBORO	KB4PC	223.22	224.82		
HICKORY	WR4ACM	222.42	224.02	N	
HIGH POINT	K4AZA	222.32	223.92		PA
HILLSBOROUGH	WA4WTX	222.34	223.94		
LOCUST	WR4BBA	222.40	224.00	N	
MORGANTON	WB4PML	223.36	224.96		
RALEIGH	WA4PEN	223.04	224.64	N	
SALISBURY	W4EXU	223.16	224.76		
SAURATOWN MT	WR4AOW	223.28	224.88		
STATESVILLE	WA4WRS	222.70	224.30	N	
SYLVA	KA4V	223.34	224.94	N	
TRYON	WB4BYH	222.86	224.46	N	P
WINSTON-SALEM	WB4UGW	222.44	222.04	N	P
WINSTON-SALEM	WA4GIC	223.10	224.70		R

SIX METERS

CARY	WR4AVP	52.35	53.35	N	
HENDERSONVILLE	WB4YAO	52.01	53.01		
HENDERSONVILLE	WB4YAO	52.525	52.525		RB
HICKORY	WR4ACM	52.47	53.47	N	
HILLSBOROUGH	WA4WTX	52.01	53.01		
NEWPORT	K4GRW	52.01	53.01		P
RALEIGH	WR4AOE	52.05	53.05		
RALEIGH	WA4PEN	52.25	53.25	N	C

450 MHZ

ASHEVILLE	WR4ALE	449.90	444.90	N	
CHARLOTTE	WR4AEU	449.60	444.60	N	P
CHARLOTTE	WR4ALO	449.85	444.85	N	
CONCORD/KANNAP.	WA4UPO	449.65	444.65	N	C
DURHAM	WR4	449.00	444.00	N	P
HIGH POINT	WR4ADR	447.90	442.90		
HILLSBOROUGH	WA4WTX	449.10	444.10		PA
HILLSBOROUGH	WB4DBB	449.35	444.35	N	
LEXINGTON	WR4	448.31	443.31	N	P
RALEIGH	WB4VIM	449.25	444.25		
SALISBURY	W4EXU	449.70	444.70		P
SAURATOWN MT	WR4AOW	448.00	443.00		C

VIRGINIA REPEATERS

TWO METERS

ALEXANDRIA	W8LMB	144.83	145.43	M	
ALEXANDRIA	WR4AXB	146.055	146.665	M	
ALEXANDRIA	W4HFH	146.085	146.685	M	
ALEXANDRIA	WA4CCF	147.915	147.315	M	
BARREN SPRINGS	WR4AFQ	146.07	146.67		
BERRYVILLE	WR4APE	147.90	147.30	M	
BLACKSBURG	WR4AXT	146.31	146.91	N	C
BLACKSBURG	WA4YRJ	146.43	147.03		
BLAND	N4AZJ	144.75	145.35	N	
BLUEFIELD	WD4RPT	144.89	145.49		
BLUEFIELD	WD8OGY	146.415	147.015		
BRIARPATCH MT	WR4AHR	147.69	147.09		L
BRISTOL	W4SZP	146.28	146.88		
BRUMLEY MT	WR4ATJ	146.01	146.61	N	
CHARLOTTESVILLE	WR4ATL	146.16	146.76		
CHARLOTTESVILLE	WR4	146.325	146.925	N	C
CHESAPEAKE	N4SD	146.19	146.79		
CLIFTON FORGE	K4QEL	147.90	147.30	N	
COLE MTN	WR4BCI	147.93	147.33	N	
COVINGTON	WA4HTI	146.22	146.82		
CRIMORO	W4PNT	147.675	147.075		
CULPEPPER	WR4BCS	147.72	147.12	M	
DAN/WHT.OAK MT	WR4BDN	146.10	146.70		
DANVILLE	WR4AHG	147.945	147.345	N	
DANVILLE(DCC)	WB4GJG	146.325	146.925		
DUBLIN	WB4UQZ	147.78	147.18		
FAIRFAX	WR4AAD	146.19	146.79		PA
FARMVILLE	WR4ASW	146.31	146.91	N	
FOREST	WR4ADY	146.16	146.76		A
FRANKLIN	K4SPS	147.90	147.30	N	PA
FREDRICKSBURG	N4QD	147.615	147.015	N	P
FRONT ROYAL	WB4NER	144.75	145.35	M	P
GALAX	WR4AHR	144.53	145.13		
GRUNDY	WR4	147.90	147.30	N	A
GUM SPRING	WR4BBI	147.87	147.27	N	
HAMPTON	WR4ALW	146.13	146.73		
HAMPTON	WR4AFT	146.34	146.94	N	T
JOHNS MT/EVNGTN	WB4JBJ	147.705	147.105		R
JONESVILLE	WA4OVC	146.31	146.91		
KLMNRK/SALUDA	WA4UAF	147.93	147.33		
LEXINGTON	WA4WBD	146.07	146.67		
LYNCHBURG	WR4AXO	146.01	146.61	N	
LYNCHBURG	WD4EXH	147.84	147.24	N	
LYNCHBURG	WB4MBO	147.975	147.375	N	C
MANASSAS	WB4HHN	146.37	146.97		PA
MARTINSVILLE	WB4HAD	147.885	147.285		
MCLEAN	WR4APC	147.81	147.21	M	R
NEW MARKET	WR4ATG	146.025	146.625	M	
NORFOLK	WA4SBC	147.645	147.045	N	
NORFOLK	WB4LJM	146.10	146.70		
PETERSBURG	K4SII	147.75	147.15	N	P
PETERSBURG	WR4BBU	147.84	147.24		
PETERSBURG	W4LGG	147.99	147.39	N	PA
PORTSMOUTH	K4LMY	146.25	146.85	N	
RICHMOND	WB4QEY	146.04	146.64		
RICHMOND	WR4BBZ	146.28	146.88	N	PA
RICHMOND	W4ZA	146.34	146.94		T
ROANOKE	WR4AHT	146.34	146.94	N	
ROANOKE	W4CA	146.385	146.985		EA
ROANOKE/SALEM	WR4AFE	146.28	146.88	N	
SHENANDOAH	WB4DAK	147.855	147.255	N	P
SOUTH BOSTON	WR4AYU	146.46	147.06	N	
STAUNTON	WR4ACL	146.37	147.97	N	
STAUNTON	W4WRN	147.645	147.045	N	
STERLING	WA4TXE	146.115	146.715	M	
SUFFOLK	WR4AKS	146.40	147.00	N	PA
TAZEWELL	WA4QKH	147.75	147.15	N	
TYSONS CORNER	K4VYN	146.31	146.91		PA
VIRGINIA BEACH	WA4KXV	146.37	146.97		EA
WAYNESBORO	W4BLD	147.63	147.03		PA
WILLIAMSBURG	W4NTG	146.07	146.67	N	
WINCHESTER	W4RKC	146.22	146.82		
WOODBRIDGE	WR4AII	147.84	147.24	M	A

SIX METERS

ABINGTON	WR4ATJ	52.01	53.01	N	L
DANVILLE(DCC)	WB4GJG	52.13	53.13		P
LEXINGTON	WR4BCI	52.01	53.01	N	
NORFOLK	WR4ATK	53.525	52.525	N	

220 MHZ

ALEXANDRIA	WA4CCF	223.22	224.82	M	P
GALAX	WA4DFH	222.74	224.34	N	P
LYNCHBURG	WB4DBB	223.34	224.94	N	C
TYSONS CORNER	K4GCM	222.34	223.94		

450 MHZ

ALEXANDRIA	WR4AAG	439.25	426.25	M	V
ALEXANDRIA	WA4CCF	449.60	444.60	M	
ANNANDALE	WR4AQG	444.85	449.85	M	
COLE MTN	WR4BCI	449.15	444.15	N	P
COVINGTON	WA4HTI	447.25	444.25		
FALLS CHURCH	WB8CRK	449.45	444.45	M	
LYNCHBURG	WB4DBB	449.35	444.35	N	L
LYNCHBURG	WB4IUS	449.50	444.50	N	T
MANASSAS	WD4JCE	444.225	449.225	M	C
PETERSBURG	WR4BBU	449.50	444.50		
PORTSMOUTH	K4MLY	449.25	444.25	N	
RICHMOND	WA4ONG	449.85	444.85	N	P
ROANOKE	W4CA	442.50	447.50		L
ROANOKE	WR4AFE	447.75	442.75	N	
TAZEWELL	WA4QKH	448.90	443.90	N	P
TYSONS CORNER	WB6GUS	443.50	448.50	M	P
TYSONS CORNER	K4LHB	444.75	449.75		
VIRGINIA BEACH	WA4KXV	449.95	444.95		
WAYNESBORO	W4BLD	449.05	444.05		
WOODBRIDGE	WR4AII	444.90	449.90	M	

REPEATER SYMBOLS

N	NON Member CVRA	L	Linked
A	Autopatch	C	Under Construction
PA	Private Autopatch	P	Proposed Repeater
EA	Emergency Autopatch	O	Off Air Temporarily
T	Tone Access	RB	Remote Base
M	T-MARC Repeater	R	RTTY

SOUTH CAROLINA REPEATERS

TWO METERS

ANDERSON	WR4AIO	146.37	146.97	N	PA
CAROWINDS	WR4ABK	147.78	147.18		
CHARLESTON	K4ILT	146.16	146.76		A
CHARLESTON	K4ESG	146.19	146.79		C
CHARLESTON	N4SC	146.34	146.94		T
CHARLESTON	WR4BCP	147.87	147.27	N	A
CHERAW	WD4HEH	147.735	147.135	N	
COLUMBIA	WR4AYE	146.16	146.76		
COLUMBIA	K4AVU	146.28	146.88	N	
COLUMBIA	WB4URY	146.34	146.94		
COLUMBIA	WR4AYE	147.84	147.24		
COLUMBIA	WB4VLY	147.93	147.33		
COLUMBIA	WB4URY	147.96	147.36		EA
DILLON	KA4BGA	146.145	146.745	N	
DORCHESTER	W4NAT	147.78	147.18	N	
FLORENCE	W4ULH	146.25	146.85		
FLORENCE	WA4ISM	146.37	146.97		PA
GASTON	WB4NEP	144.61	145.21		A
GREENVILLE	W4AZT	146.10	146.70		A
GREENVILLE	WR4	147.675	147.075	N	PA
GREENWOOD	WR4AUE	147.765	147.165		PA
GREER	W4IQQ	146.34	146.94	N	
GRNVLE/CSRS HD	W4NYK	146.01	146.61		
GRNVLE/PARIS MT	W4NYK	146.22	146.82		PA
HODGES	KB4YF	144.53	145.13	N	C
LANCASTER	W4PAX	146.10	146.70		PA
LAURENS	WA4UZA	146.25	146.85		A
LEXINGTON	WR4AGK	147.255	146.835	N	
LITTLE MT	K4AVU	147.81	147.21		C
LONG MT	WA4JRJ	147.87	147.27	N	
LYMAN	KS4I	147.885	147.285		
LYONS(GA)	K4HAO	146.22	146.82		
MARION	W4YLX	146.40	147.00		EA
MYRTLE BEACH	WA4KGN	146.01	146.61	N	
N. AUGUSTA	K4FKJ	146.13	146.73		
N. AUGUSTA	WR4ALS	147.72	147.12	N	
ORANGEBURG	WR4AQY	147.69	147.09	N	A
PICKENS	WR4ADP	146.40	147.00	N	
ROCK HILL	WC4ABD	146.43	147.03		PA
SASSAFRAS MT	WR4	146.19	146.79	N	P
SAVANNAH(GA)	W4HBB	146.28	146.88		
SAVANNAH(GA)	W4HBB	146.37	146.97		A
SPARTANBURG	K4JLA	147.69	147.09	N	PA
SUMMERVILLE	WR4	146.25	146.85	N	C
SUMTER	WR4AOI	146.04	146.64		
SUMTER	WD4ECQ	147.615	147.015		
SUMTER/SHAW	WR4AUS	147.66	147.06	N	
SWAINSBORO(GA)	K4VYX	146.19	146.79		
TOCCOA(GA)	WA4LUC	146.19	146.79	N	
TOCCOA(GA)	KA4DIP	148.03	147.33		
WHITE HALL	WR4AQL	146.31	146.91	N	

TEN METERS

ANDERSON	N4JK	29.53	29.63	N	

SIX METERS

COLUMBIA	WR4	52.05	53.05	N	

220 MHZ

COLUMBIA	WB4URY	222.30	223.90		
GREER	W4ILY	222.38	223.98	N	PA
SASSAFRAS MTN	W4FHJ	222.46	224.06		

450 MHZ

ANDERSON	N4JK	439.25	427.25	N	CV
CHARLESTON	N4SC	449.10	444.509	N	T
SUMMERVILLE	WR4	449.00	444.00	N	P

TENNESSEE REPEATERS

TWO METERS

ALAMO	WR4API	147.135	147.735	N	
ALTAMONT	WR4AWN	146.37	146.97	N	
BRISTOL	K4ILW	146.07	146.67		A
BRISTOL	W4SZP	146.28	146.88		A
BRISTOL	WR4AXQ	147.60	147.00	N	
BROWNSVILLE	WR4ASI	146.655	146.055	N	
CHATTANOGA	K4CMY	146.01	146.61		
CHATTANOGA	W4DSK	146.19	146.79		
CHATTANOGA	WA4ZOK	147.60	147.00		PA
CLARKSVILLE	WR4AOO	147.60	147.00	N	
CLEVELAND	WR4AQV	147.78	147.18	N	
COLUMBIA	WR4AIX	147.72	147.12	N	
COOKEVILLE	WR4ANW	146.07	146.67	N	
COOKEVILLE	WB4QSJ	147.81	147.21	N	
COVE MTN	WA4KJH	146.25	146.85	N	PA
CROSSVILLE	WR4	147.93	147.33	N	
DAYTON	N4OU	147.99	147.39		
FAYETTEVILLE	WR4BAQ	147.63	147.03	N	
GALLITIN	WR4BCX	147.84	147.24	N	
GREENEVILLE	W4ANB	146.10	146.70		
GREENEVILLE	WA4LYF	147.66	147.06		
HENDERSONVILLE	W4KKO	144.89	145.49	N	
HENDERSONVILLE	WR4BCX	147.63	147.03	N	
JACKSON	WR4AQN	147.81	147.21	N	
JOHNSON CTY	WB4IKB	146.19	146.79		
JOHNSON CTY	WA4DIU	147.87	147.27		A
JONESBORO	WB4SQC	147.99	147.39		PA
KINGSPORT	WR4ADO	146.16	146.76		EA
KNGSPT/BAYS MT	W4TRC	146.37	146.97		A
KNOXVILLE	WB4JSD	144.51	145.11		
KNOXVILLE	WR4AIA	146.01	146.61	N	
KNOXVILLE	WR4APU	146.13	146.73		
KNOXVILLE	K4HXD	146.34	146.94	N	A
KNOXVILLE	WR4AHF	146.40	147.54	N	
KNOXVILLE	K4HXD	147.675	147.075	N	A
KNOXVILLE	W4BBB	147.90	147.30		
LAFOLLETTE	WR4AKW	146.07	146.67		
LAKE CITY	WB4OAH	146.22	146.82	N	
LEBANON	WR4BBM	146.13	146.73	N	
MADISON	WR4AKN	146.04	146.64	N	
MANCHESTER	WR4ACI	146.10	146.70		
MEDINA	K4BEZ	146.37	146.97	N	
MEMPHIS	WR4AZK	144.89	145.49	N	
MEMPHIS	WR4AHK	146.01	147.51	N	
MEMPHIS	W4GYS	146.04	146.64	N	
MEMPHIS	WR4AOG	146.10	146.70	N	R
MEMPHIS	WR4AGR	146.13	146.73	N	
MEMPHIS	WR4ABS	146.19	147.51	N	
MEMPHIS	WR4AHO	146.22	146.82	N	
MEMPHIS	WR4AZK	146.25	146.85	N	
MEMPHIS	WA4ETE	146.28	146.88	N	
MEMPHIS	K4BN	146.34	146.94	N	
MEMPHIS	K4FZJ	146.40	147.00	N	
MEMPHIS	WR4AXF	146.46	147.06	N	
MEMPHIS	WR4BCU	147.63	147.03	N	
MEMPHIS	WR4AWT	147.67	147.09	N	
MEMPHIS	WB4DAZ	147.72	147.12	N	
MEMPHIS	WR5AII	147.75	147.15	N	
MEMPHIS	WR4AZK	147.78	147.17	N	
MEMPHIS	WD4APK	147.84	147.24	N	
MEMPHIS	WR4AZC	147.87	147.27	N	
MEMPHIS	WR4ASF	147.90	147.30	N	
MEMPHIS	WR4ATA	147.96	147.36	N	
MEMPHIS	WR4ASR	147.99	147.39	N	
MERRYVILLE	K4HXD	146.34	146.94	N	
MORRISTOWN	WB4AOH	147.63	147.03	N	
MORRISTOWN	WB4AOH	147.825	147.225	N	

Continued on Next Page

TENNESSEE REPEATERS

(Continued)

NASHVILLE	WR4AWV	146.01	146.61	N	
NASHVILLE	WR4AKN	146.07	146.67	N	
NASHVILLE	WR4ACS	146.16	146.76	N	
NASHVILLE	WR4AFA	146.19	146.79	N	
NASHVILLE	WR4ABV	146.25	146.85	N	
NASHVILLE	WR4ACY	146.28	146.88	N	
NASHVILLE	WR4AGX	146.34	146.94	N	
NASHVILLE	AI4P	147.615	147.015	N	
NASHVILLE	WR4AUX	147.75	147.15	N	
NASHVILLE	WB4HFS	147.78	147.18	N	
NASHVILLE	WA4YQC	147.87	147.27	N	
NASHVILLE	WB4ZSA	147.90	147.30	N	
NASHVILLE	WR4BBT	147.945	147.345	N	
NASHVILLE	WR4AKN	147.96	147.36	N	
NASHVILLE	WR4	147.975	147.375	N	
NASHVILLE	WB4DLQ	147.99	147.39	N	
NEWBERN	AA4HF	146.745	146.145	N	
OAK RIDGE	W4SKH	146.28	146.88		A
OAK RIDGE	W4SKH	146.37	146.97	N	A
OAK RIDGE	K4EAJ	147.72	147.12		
OAK RIDGE	K4EAJ	147.75	147.15		R
PARIS	WR4AYM	147.96	147.36	N	
POPLAR BLUFF(MO)	WOBIU	146.31	146.91	N	
PULASKI	W4JVO	146.715	146.115	N	
SAVANNAH	WA4HGN	146.31	146.91	N	
SHELBYVILLE	WR4AQM	147.66	147.06	N	
SHORT MT	WR4AZF	146.31	146.91	N	
SPARTA	WR4ASV	147.69	147.09		
SPRINGFIELD	WR4AGH	147.63	147.03	N	
UNION CITY	WR4AUQ	146.10	146.70	N	
UNION CITY	K4MVE	146.655	146.055	N	
WAVERLY	WR4AYB	146.685	146.085	N	
WINCHESTER	WR4AFH	146.22	146.82	N	

SIX METERS

KNOXVILLE	WA4OBJ	52.15	53.15	N
KNOXVILLE	WR4BDK	52.46	53.46	N
LAFOLLETTE	K4BGW	52.17	53.17	
MEMPHIS	WR4AZK	52.01	53.01	N

220 MHZ

CHATTANOOGA	K4VCM	223.18	224.78	
CHATTANOOGA	WA4ZOK	223.30	224.90	
GREENEVILLE	WB4NKM	223.34	224.94	
KNOXVILLE	WB4BYH	222.86	224.46	N
LAFOLLETTE	K4BGW	222.80	224.40	
NASHVILLE	WR4	223.38	224.79	N

450 MHZ

ALAMO	WB4EDS	448.75	443.75	N	L
CHATTANOOGA	WA4ZOK	439.25	427.25		V
KINGSPORT	WR4ADO	449.50	444.50		EA
MEDINA	K4BEZ	447.05	442.05	N	AL
MEMPHIS	WB4BDO	448.40	443.40	N	A
MEMPHIS	WA4FNL	449.50	444.50	N	A
MEMPHIS	WD4APK	449.50	444.30	N	

PLANNING ON BUILDING A REPEATER

If you plan to place a repeater on the air, contact your State Director, listed on the back cover of the JOURNAL. He has a wealth of information concerning available interference-free frequencies for your particular area. He'll be glad to work with you.

WEST VIRGINIA REPEATERS

ALDERSON	WR8AKZ	146.13	146.73		
BECKLEY	WR8ACO	146.34	146.94	N	
BKLY/FLAT TOP MT	WR8AKZ	146.25	146.85		A
BLUEFIELD	WD4RPT	144.89	145.49		
BLUEFIELD	WD8DGY	146.415	147.015		
BRIDGEPORT	WR8ALC	147.705	147.105		EA
BRIDGEPORT	WR8ALC	147.72	147.12		EA
BUCKHANNON	K8WYH	146.25	146.85	N	
CHARLESTON	WR8AER	146.22	146.82	N	
CHARLESTON	WB8CQV	146.28	146.88	N	
CLARKSBURG	WB8ZVS	146.22	146.82		A
COTTAGEVILLE	WR8AKV	146.31	146.91	N	
ELKINS	WR8AOH	146.04	146.64	N	
FAIRMONT	W8JM	146.31	146.91		
HUNTINGTON	WR8AFE	146.04	146.64	N	
HUNTINGTON	WR8AGH	146.16	146.76	N	
HUNTINGTON	KA8BKX	147.90	147.30	N	
LOGAN	WR8ADD	146.37	146.97	N	
MARTINSBURG	WB8VUZ	147.855	147.255	N	
MCMECHEN	W8WUX	146.31	146.91	N	
MORGANTOWN	WR8ABM	144.83	145.43		
MORGANTOWN	WB8YZT	146.085	147.955	N	
MORGANTOWN	W8CUL	146.16	146.76		
MULLENS	WR8AKX	147.63	147.03	N	
NEW MARTINSVLLE	WR8ABY	146.34	146.94	N	
OAK HILL	WD8OQJ	146.19	146.79	N	
PARKERSBURG	WR8ACJ	146.37	146.97		PA
PARKERSBURG	WR8ACJ	147.96	147.36		
PARSONS	WR8AGU	144.73	145.33	N	
PENNSBORO	WA8CND	147.90	147.30	N	
PRINCETON	WB8NRK	146.46	147.06		
RAVENSWOOD	WA8USO	146.07	146.67		
RICHWOOD	K8VKB	146.34	149.34		
SCOTT DEPOT	K8SLI	147.87	147.27	N	
SPENCER	WB2HVN	146.01	146.01	N	
ST ALBANS	WR8AJS	146.40	147.00		
TERRA ALTA	WB8PHU	147.60	147.00		
WEIRTON	WR8AQA	146.34	146.94		
WELCH	N8ACQ	144.85	145.45		
WHEELING	W8JDH	146.16	146.76		

TENNESSEE

ACTING DIRECTOR
O. D. Keaton, WA4GLS
141 Medearis Drive
Old Hickory, Tenn. 37138
(615) 758-2329

CAROLINAS-VIRGINIA REPEATER ASSOCIATION
cvra
MEMBER

WEST VIRGINIA

ACTING DIRECTOR
Mike Palmer K8LG
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Morgantown, W. Va. 26505

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WHAT MAKETH THE CAJUN RAGE?

-by Harry Simpson W4MI

LIONEL LeJEUNE a "cajun" from Louisians settled in Memphis, Tenn., about 25 years ago, where he has made his mark on Amateur Radio. LeJeune is an institution in Memphis, and knowing him can be nothing but a pleasure, as his hundreds of friends will attest.

Come with me into the western portion of CVRA's newest state — Tennessee — and meet Lionel LeJeune, an unforgettable radio ham who operates not one but FOUR repeaters in the Memphis area! His call is WA4KOG, and the repeaters are all WR4AZK

"Lionel," I asked, "what got you started in the repeater business?"

"I got into the two-meter picture with the purchase of a Regency HR2A, complete with 34-94 crystals. I didn't know anything about repeaters, or dues, or anything — but I heard a familiar call and went back to him.

"The repeater went off the air — it seems that I wasn't a paid-up member of that group! I made some comment about running a business to make money," he continued, "and later, when I found out all the details I sent in my check — which was promptly returned! They didn't want me or my money!"

The Cajun then put his own repeater on 25-85, and the clan started gathering. Shortly, a second repeater was put in service, then a third! Finally, there were some harsh words tossed about on the six-meter repeater, the owner sold it, left everyone without communications, so Lionel put another repeater on six meters — a total of four repeaters, now serving over three hundred Memphis area hams — and no dues!

All this personable fugitive from Louisiana needs to do is to say over the air, "Say, you guys — we need some money for a new diplexer!" More than enough is quickly raised. In one case $1900 to buy Heliax ws raised in 14 days. The donations are scrupulously accounted for, and a written report is given to each "member" at one of the periodic 'eatin' meetin's." I placed "members" in quotes, since anybody who turns on 25-85 and says a word is automatically a "member."

Lionel came to Memphis about 25 years ago to visit his brother. He ran into one of Memphis' rare snowstorms, went back to the bayous, returned when the weather got warm, and has lived here ever since. His wife, ŁaRissa, is also an active ham — WA4NYL; their 17-year-old son Timmy is WA4NUS, and they have two older children, Shelia 22 and Buddy 21.

LeJeune holds an administrative position with Fineberg Packing Company, makers of Starling Frankfurters among other things. During this interview the Cajun started "ragin" about a huge steer at the stockyards that started chasing him around the lot — he escaped by jumping over a tall fence and landing in a pile of - - - er, second base!

They have a new dog — a 145-pound St. Bernard. Both 'Risa and Lionel are camping fanatics (even as your reporter) and on a recent weekend they discovered that the dog "Bandit" was too large to turn around in their motor home — he kept going backward and forward. They finally took him home at midnight — then returned to the campground for the remainder of the night!

Lionel LeJeune is an institution in Memphis — and knowing him can be nothing but a pleasure. His hundreds of friends will attest to the fact that he is a great guy, even if he does despise money-making repeaters! . . . and long-horned steers!

The 25-85 machine is a Spectrum, with a Wacon Diplexer. It is located atop the 29-story Sterick Building in downtown Memphis. The other repeaters are Motorola and are located atop the Southern College of Optometry. All use Phelps-Dodge antennas. The 25-85 machine has touchtone phone patch, fast dialing, incoming call detector, and all kinds of state-of-the-art goodies. Perhaps more hams use this machine than any other in Tennessee — a recent "25-85" party included 92 users and their friends!

You are cordially invited to use these repeaters at any time. Here are the frequencies: 146.25 - 146.85 147.78 - 147.18 - 144.89 - 145.49 - 52.01 - 53.01.

TECHNICAL TIP

Noticed a loss in coverage from your local repeater in which you have nice clear signals? The problem may not be the repeater — it may be your mobile antenna. Many antennas develope leaks for moisture or water to enter the loading coil or coax. Give your antenna a thorough checkout several times a year.

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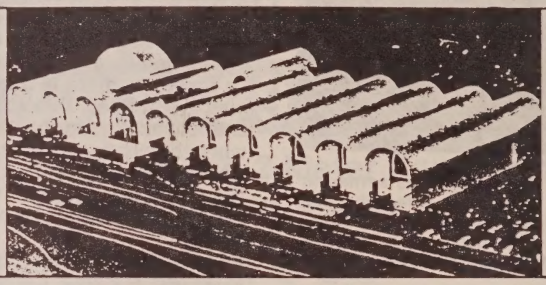

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MEET ONE OF OUR WEST VIRGINIA REPEATERS — THE FLAT TOP

-by Robert F. Myers KA8CVI

The "Flat Top Machine" is known for miles in the Eastern part of West Virginia. This machine operating on 25-85 is affiliated with the Black Diamond Amateur Radio Club of Beckley.

WR8AKZ/8 is located about 12 miles East-Southeast of Beckley on Flat Top Mountain, at an elevation of 3,800 feet. The VHF Engineering repeater feeds a Wacom duplexer and Phelps-Dodge antenna. The 25-85 machine has autopatch facilities with a 3 minute timer. The open machine is carrier accessed and CW identified. The Flat Top repeater was placed in service in August of 1977 and immediately provided excellent coverage in the surrounding area. Coverage is now plotted to the South end of the West Virginia Turnpike. Good coverage is also evident to Routes 3, 20, 21, 19-21, 219, Corridor L and many other Southern West Virginia routes as well as the East River Mountain Tunnel to Parisburg, Va.

Bill Ormandy, K8BO and Bill Elkin, WA8WDK are co-trustees of the CVRA Full Member Repeater.

The Black Diamond ARC of Beckley meets the 3rd Thursday of each month. The club participates in various activities including Novice, Technician and General Amateur classes, Field Day and Sweepstakes. The club also is considering a Weather Net. The club is very serious about proficient operation during emergency situations. The club net meets on the repeater each Monday evening at 2100 with various club members acting as net control operators.

The club invited travelers to use the 25-85 machine on Flat Top when they are passing through the area.

CVRA DECALS GOING FAST

We have only a few hundred decals left! If you want a beautiful CVRA Decal, send 25¢ for each decal desired, and S.A.S.E. to: CVRA DECAL, Route 1, BOX 806, COLFAX, N.C. 27235.

CVRA HAS TWO LIFE MEMBERS

In the February Repeater Journal, we mention the fact that Phil Wicker, W4ACY, Roanoke Division Director of ARRL was the first CVRA life member.

Being a youngster in the organization, I was unaware and was told that Mr. Wicker was the SECOND Life member of CVRA.

Vic Clark, W4KFC has the distinction of receiving the first life membership, an honor bestowed on individuals with a long record of achievements and unselfish assistance in our organization. It is quite fitting that both Phil and Vic be honored. Both have supported the CVRA for years and although neither have held official offices in the organization, their efforts have been more fruitful than many who worked for us in an official capacity.

Again we salute you W4KFC, Vic, and W4ACY, Phil and offer you many thanks for your fine work in Amateur Radio. (The Editor)

YA CAN'T LIVE THERE OLE MAN

Continued From Page 11

five-nine plus in Danville, Virginia. The name's Mike . . . over."

KC4AO . . . this is WA7&&&. Okay on the QTH . . . sure thing, ole man! How long you been a ham, Mike . . . break!"

"Several years . . . go ahead."

"Mike, you should know where KC4-land is. With that call, you can't live there, ole man . . . not in Virginia. What are you, some CBer?"

"Yeah, you can't live there," another unidentified station shouted with speech processor going full throttle.

I quickly signed, killing the power on the low band rig and went upstairs to see if any aspirin were in the medicine cabinet. I looked at my brand new license, which seemed to have lost some of its luster. I went to my typewriter and began to compose a letter to Gettysburg. It read:

Dear FCC Computer:

I've got this problem. People keep telling me I can't live here. Does the call WA4JIY mean anything to you . . . . .

SOUTH CAROLINA DISTRICT NEWS ITEMS

Jack Watson, W4YPD, Director

EASLEY (Sasifrass Mt.) — The Altamont ARC reports the long awaited 220 repeater is now on the air atop the tallest mountain in South Carolina. The 222.46-224.06 machine has an ERP of 25 watts. The repeater, a converted Midland 13-509 has a DB Products duplexer. Remaining equipment is home brew. The project was started by the club in early 1978, with the repeater getting on the air for a short time from the home of Rich Tillotson, WA4SSJ. Coverage was very limited however. The club had to construct a building and a tower on Sasifrass Mt. to house the repeater. The job is now completed and the club is very pleased with the machine which is proving 100 miles plus coverage. They invite 220 operators in range to join them. W4FHJ/R is a full member of CVRA. (Rich, WA4SSJ)

AMATEUR RADIO WEEK . . . during the week of June 22 thru June 28 has been proclaimed by Governor Richard W. Riley of South Carolina. In his proclamation, the Governor urges all citizens to join in observing and recognizing Amateur Radio operators for their contributions to communications, the art, and dedicated efforts to their avocation.

SASIFRASS MT. . . . A 2-meter repeater is planned for Sasifrass Mt. the highest in South Carolina. The frequency of 19-79 has been coordinated for the proposed machine, to join the Altamont ARC 220 mhz. repeater recently placed on the hill.

FCC HIGHLIGHTS

JANUARY . . . The FCC adopted rules permitting ASCII for U.S. Amateurs. in adopting the 3rd report and order on Docket 20777, the Commission specified that amateur ASCII transmissions must conform to ANSI Standard X3.4-1968, with F1 (only) used on frequencies presently authorized for RTTY use between 3.5 and 21.25 mhz at a maximum rate of 300 baud. On RTTY frequencies between 28 and 225 mhz, Fi, F2 and A2 may be used at a transmission rate up to 1200 baud. Above 420 mhz, F1, F2, and A2 are all permitted with a baud rate up to 19.6 kilobaud. The rule, Section 97.69 (b), ASCII will be permitted not only for conventional communications but also for such purposes as commputer-to-computer communications, computer control of repeaters and other Amateur stations and packet communications. Amateurs had to wait until March 17 to begin using ASCII, due to delay in writing the rules and implementing them. (HrReport)

JANUARY . . . 220 Amateur interests got a shock through a mistake in wording in General Docket 80-1 which proposed new inland waterway communications system on 216 to 220 mhz. In one section of the Docket, the frequencies of 216 to 225 mhz. were mentioned, but a loud cry from the Amateur community made a hasty correction in the text to correctly read 216 to 220 mhz. (Hr Report)

FEBRUARY . . . A decision was handed down in the ARRL lawsuit regarding the FCC's 10-meter amplifier ban. The decision was 3 to 0 against ARRL. Essentially the court of appeals said that though it might have decided the case differently than the FCC, at this point it should not substitute its judgement differently for the commissions. (ARRL Bulletin)

MARCH . . . Amateur population grew slightly from a year ago with totals at the end of February standing at 366,732. Extras led with a gain of 9%, Novices up 2.4%, Advanced up 2.7%, Generals 3.7% and Technicians up .6%. (Hr Report)

1980 SVARC HAMFEST AUG. 3 IN NORTHERN VIRGINIA

The Annual Shenandoah Valley ARC (SVARC) Hamfest will be held August 3 at the Clarke County Ruritan Fairgrounds in Berryville, Virginia (Just outside of Winchester, Va.) The Hamfest has two exhibit buildings and a large shaded flea market area. One of the highlights of the hamfest is at noontime when the Ruritan Club's famous Chicken Barbeque Dinner is served.

The hamfest will feature arts, crafts, much ham equipment and flea market, plus ladies bingo. They plan hourly drawings and grand prize drawing Sunday afternoon. Grounds open at 8 a.m. Sunday morning. Talk-in on the 22-82 repeater.

For early arrivals, a Banquet will be held Saturday night at Duff's Rebel Restaurant in Winchester., with Buffet at 7:00 p.m.

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HAMFEST AND CONVENTION SURVEY

We are not publishing the results of the Hamfest Survey this issue because less than 100 persons responded to the Survey first published in February. The Journal feels that the results of such a survey would be most valuable to clubs holding hamfests, enabling them to make changes to their events most desired by individuals attending. We feel we need a much larger number of responses to get an accurate bearing on the majority of hamfests attendees. Please take the time now and fill out this Hamfest Survey and mail it to: CVRA Repeater Journal, Route 1, Box 806, Colfax, N.C. 27235. Thank you!

1. How many Hamfests do you attend each year: ( ) 1-2 ( ) 3-5 _____How Many?

2. When you visit a Hamfest, do you mostly: ( ) Buy ( ) Sell ( ) Trade ( ) New ( ) Used?

3. Would you like to see more ( ) New Equip. Dealers ( ) Used Equip. Are you satisfied generally with what you see at the hamfests you attend? ( ) Yes ( ) No

4. Would you like to see more hamfests in the area? ( ) Yes ( ) No Do you prefer large convention-type hamfests ( ) or small flea market outdoor hamfests ( )? If a new hamfest starts in your area this year, will you go to see what it is like? ( ) Yes ( ) No.

5. Do you like for a hamfest to give away prizes hourly ( ) or give them all away at one time in the afternoon ( ) Do prizes convince you to attend a hamfest ( ) Yes ( ) No?

6. Do special events and seminars help you at a hamfest ( ) Yes ( ) No? Do you like to see special demonstrations, club projects, Radio Clinics ( ) Yes ( ) No?

7. Now that the FCC will not be giving exams at hamfests, will this change your mind about attending any of them ( ) Yes ( ) No. Have you taken exams at a hamfest ( ) Yes ( ) No.

8. Do you like to see special programs for the ladies ( ) Yes ( ) No? Does your wife or girlfriend go with you to hamfests ( ) Yes ( ) No _____How often? How many miles will you drive to attend a hamfest, say your favorite _____? Any Other you attend _____

9. Do you like 2-day hamfest ( ) Yes ( ) No. Do You attend ( ) 1st Day ( ) 2nd ( ) Both. Do you stay at a local motel ( ) Camp ( ) Other _____.

10. Do you try to deal with people you know personally when buying equipment ( ) Do you seek out the very best price ( ) Do you try to deal with local dealers ( ) or out-of-our area dealers regardless of size ( ) Local ( ) Out of area. Do you think dealers are fair with you ( ) Yes ( ) No. Do You feel you made the right decision on your latest purchase ( ) Yes ( ) No. Was your purchase a result of a dealer's "salesmanship" or you went to buy? ( ) Salesmanship ( ) Went to buy

11. Your Personal Data: ( )-Male ( )-Female ( )-Age ( )-Years a ham. Residence (State) _____ARRL Member ( )-Yes ( )-No. Amateur Interests: ( )-HF Bands ( )-6M ( )-2M ( )-220 ( )-450 ( )-Handheld ( )-Mobile ( )-Base ( )-RTTY ( )-EME ( )-TV ( )-Satellite Active in club(s): Yes-( ) No-( ). Active in Public Svc., CD, etc. ( )-Yes ( )-No. Traffic ( )-Yes ( )-No.

12. Please write any additional remarks you wish to make about hamfests in general:

Please fill out survey and mail by June 30, 1980. Your impressions are needed!

Radio Amateur Club of Knoxville
P.O. Box 124
Knoxville, Tennessee 37901

Spring, 1980

Dear OM, YL, Everybody,

Once again we'd like to invite each of you to come across the mountains and attend the Knoxville Hamfest over Memorial Day Weekend, May 24 and 25.

We'll be back at the Jacob Building at Knoxville's Chilhowee Park. It's a large facility--large enough to permit an indoor tailgate flea market, and a good array of dealer and manufacturer booths.

Incidentally, for non-ham guests, Chilhowee Park is home of one of the finest amusement parks in the area, and boasts the world-famous Knoxville Zoo, so don't hesitate to bring the whole family, including the kids--there's something for everybody.

Hamfest events include ARRL, emergency, space, MARS, and other forums, and a CW contest with prizes for fastest copy and certificates of code proficiency from 5 WPM and up. On Saturday night, May 24, we'll have a fine banquet, and the Wouff Hong initiation will be held after the banquet.

Hamfest talk-in will be on the Knoxville repeater, 147.90/.30, and 3980. For more information contact Ron, WD5FUN, or Ed, W4NZW at the above address. We really do hope to see you Memorial Day Weekend in Knoxville.

Radio Amateur Club of Knoxville

73's and See You There!
"RACK"

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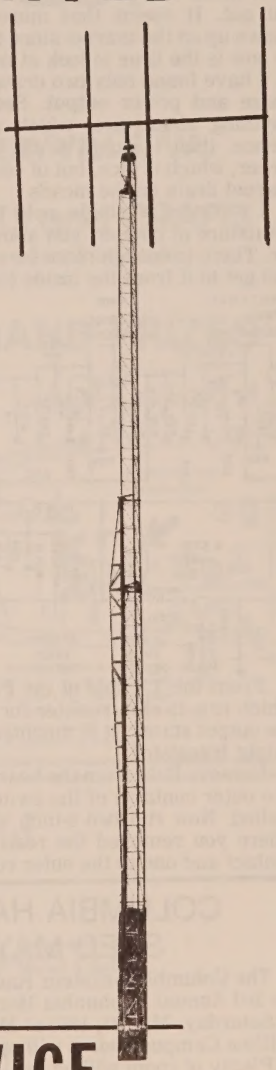

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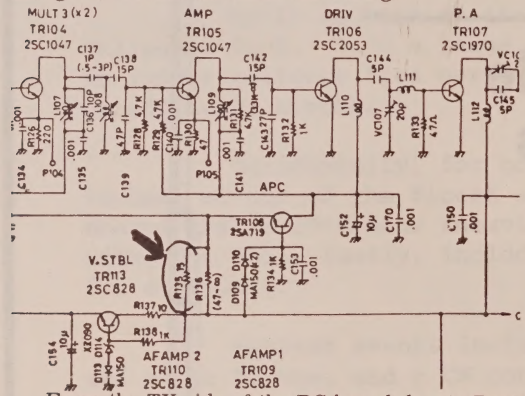
HI AND LOW FOR HYGAIN 3806

Special to the Journal
-by Steve Parkman, WB70MM, Tuscon, Ariz.

A quick and easy modification for more power out put. It seems that more 3806 Hygains have shown up on the market since the price game down, so now is the time to look at modifications for it.

I have found only two drawbacks to my Hygain ...size and power output. Seeing that I can't do anything about size, which is a minor inconvenience, then I sought to do something about the power, which is nice, but of course there is a larger current drain on the nicads.

I mounted a single pole double throw switch (minature of course) just above the channel selector. There is enough room here to mount the switch and get to it from the inside for wiring.



From the TX side of the PC board, locate R135 which is a 15 ohm resister for current limiting one the output states. It is mounted just above the final output transistor.

Remove R135 from the board and mount it on the two outer contacts of the switch which you just installed. Now run two 6-inch wires from the board where you removed the resister up to the center contact and one to the outer contact of the switch.

This will enable you to switch the resistor in or out of the circuit, giving you about 3 watts out on high power, and about 1 watt on low power. This modification has been in my Hygain handheld for about 7 months now with no problems.

COLUMBIA HAMFEST SKED MAY 31

The Columbia Amateur Radio Club will sponsor the 3rd Annual "Columbia Hamfest and Swapfest" on Saturday, May 31, 1980 at Midlands Tec College, Beltline Campus. Doors will open at 9 A.M.

Plenty of room will be available for the outdoor Swapfest on the south parking lot. Indoors will be Dealer displays, Bingo, Food in the common area on campus. Talk-in will be on 34/94.

For more information please write or call Bob Burks, (WB4GGK) C.A.R.C., P.O. Box 5802, Columbia, S.C. 29250 (803) 776-9054.

NOW WE ARE CVTWVARA

Continued From Page 1

associate memberships for our organization.

Both Tennessee and West Virginia can claim some sort of record. After two months of campaigning, West Virginia has 47% full member representation from repeaters across the State. Their associate membership campaign is about to start shortly.

Tennessee on the other hand, has a large number of repeaters, in fact, they now are 2nd place behind North Carolina in total repeater numbers on UHF-VHF bands. their repeater representation although well ahead of the required number to form a district, still falls short of majority representation. two large cities in Tennessee, Memphis and Knoxville would be two areas to concentrate and gain membership and support.

Where Tennessee did shine the most in their early campaign, was with associate memberships. They picked up over 200 in a very short while. This might not sound like a lot, but 200 is almost half of what Virginia has been able to sign up in 8 years . . . and about 60% of what South Carolina has been able to obtain in their 8 years.

It is our hope that the pressure these two new districts are placing on the other districts in the CVRA, as far as membership numbers are concerned, will cause a new spirit of competitiveness and transfuse some life into the slow trend we have seen in membership growth in some districts. The CVRA should have a majority in EVERY district if we are to represent the entire state well. Every Director and Vice Director should work to that end . . . no excuses . . . no complaining . . . just get out and get help and CAMPAIGN!

And finally, the name change. It obviously must happen. As we write this, Directors and acting Directors from each of the five Districts are compiling names favorable and suitable to an organization such as ours. The names will be submitted to the Secretary who in turn will produce a ballot for a final vote at the annual meeting August 30 in Shelby.

As Editor of the Repeater Journal I have only one thought. The new name for our organization should retain the letters CVRA. CVRA can mean anything you want it to (Community of Vital Repeaters . . . etc.)' but it should be included in the new name. We are known nationwide as the CVRA and lots of us have worked too hard to drop it now.

How about: CVRA — (You fill in whatever you want) Nuff said!!

-Wayne C. Williams, Editor

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1980 SVARC HAMFEST

SUNDAY, AUGUST 3rd

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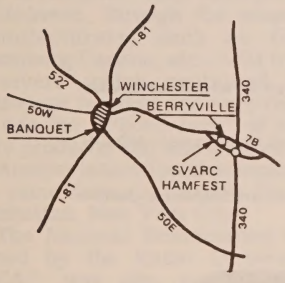

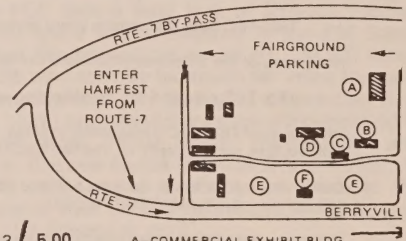

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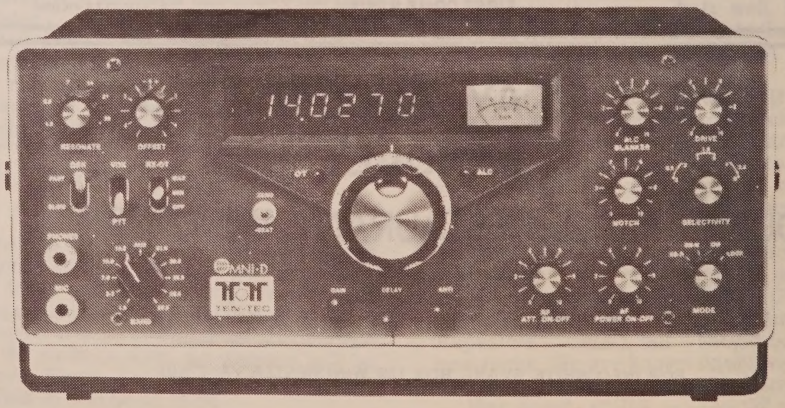

The History of FM

IN THE BEGINNING THERE WAS FM . . . AND THEN REPEATERS

-by Al Ross, K4CAW, CVRA Freq. Coord., chairman

FORWARD: At a recent C.V.R.A. meeting, visitors attending were invited to ask questions. Someone asked, "How did Amateur Radio get started on F.M.,?"

The question was directed to CVRA's new President Lane, who looked on the assembled group, and asked this writer 'Al, (K4CAW) would you care to answer?" I replied, "I don't think we can spare that much time at this meeting."

The President promptly replied "How about 'writing' the story so it can be published in a future issue of the Journal?" Not knowing how to get out of that one, I agreed, and here we go.

IN THE BEGINNING

In the late nineteen thirties (approximately 1937), the man now regarded as the "Father" of frequency modulation, Major Edwin Armstrong, obtained approval from the FCC to place in operation the first FM broadcast station in the United States, on an experimental basis, no commercials, etc. This station was put up at Alpine, New Jersey.

This was indeed a bold step because no one had an FM Receiver. They were yet to be built!

However, through the cooperation of several manufacturers, such as General Electric, Stromberg Carlson, etc., "FM tuners", small radio receivers which contained the basic Super Hetrodyne receiver and were required to be plugged into the "Phono Jack" of existing radio sets, were produced and sold on a very limited basis.

Another interesting development was going on at the same time, just across the Hudson River, in Manhattan, New York City.

The National Broadcasting Company, "NBC" owned by the Radio Corporation of America, "RCA", was also given approval to conduct "Television Field Tests" from atop the Empire State Building. Another bold step — who had TV sets in 1937?"

However, manufacturers soon produced TV receivers — the "Biggie" was a 12 inch model sold by RCA — (who else?).

This TV station operated on 42 to 48 MHZ which was called TV Channel No. 1.

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Place your name on the CVRA Journal Honor Roll and receive a handsome certificate. All you have to do is get 10 or more new members to join the CVRA as Associate Members. Clip or copy the application in this book. When you get ten who have mailed in their applications, send your name and address, with the call signs of the 10 persons you got to join, to the Journal Editor. (His address is on Page 1 of this book.)

After one year of FM operation and about the same for TV, both Armstrong and NBC requested higher frequencies, as Armstrong's FM had been lower than Channel No. 1 and RCA wanted to get higher than Channel No. 1. FCC approved RCA to move up and Armstrong would be the first FM station to occupy part of 42-48 MHZ.

This of course was the end of Channel No. 1 TV as originally specified by FCC.

The popularity of FM grew slowly, the quality of audio plus the lack of atmospheric disturbances attracted the attention of a lot of "Shortwave" users, Taxis, Police, Sheriff, State Police, etc.

However, World War II was rapidly approaching and so it wasn't until after 1945 that FM really started to grow.

As the FCC was controlling all frequencies, they soon ran out of spectrum space, and FM (entertainment) and commercial frequencies were moved up, to make room for everybody.

However the new space was soon crowded again and the FCC took a long look at Private License Allocation space and announced to the FM Radio world that the prevailing +/- 15 KC (30 KC total) bandwidth was entirely too much for voice frequency communication, and that as of a specified date (about 1 year) manufacturers were not permitted to make any more "Wide Band" transmitters and receivers. The new bandwidth would be +/- 5 KC (10 KC total) and also as of about two years in the future, use of wide band transmitters would be prohibited. (No license to xmit)

As you might expect, much moaning was heard from all, but the manufacturers.

The date of the deadline for use of wide band equipment was the "Birthday" of Amateur FM.

Equipment that originally sold for several thousand dollars was now obsolete. As the concept of "Repeaters" was already in use in the industrial and commercial field, a large amount of this obsolete equipment could be had for relatively few dollars. Mobile units — $30-$50 each; Repeaters — up to 250 watts - $200-$400.

The Amateurs in California seem to have been the first to jump in and proceed to set up "Amateur" repeaters. They were closely followed by Texas and the fever spread rapidly. The rest is recent history.

In 10 years — 1970-1980 — obsolete commercial equipment which was all that was available in 1970 is now almost extinct in 1980.

In 1970 North Carolina had 7 repeaters (4 of them on 34-94). In 1980, North Carolina has 105 on 2 meters alone. And still more on the way.

It appears that FM as known by the amateurs of 1980., is here to stay.

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THERE ARE NO MORE TWO-METER FREQUENCIES

-by Bob May, K4SE, Asst. Dir. SW, Va.

Little did I know I would ever be saying this, especially in my own East Tennessee/Southwest Virginia/Western North Carolina area. Back in the early '70's when repeaters were a lot fewer and further between, it was a matter of pride and joy to have a repeater anywhere near close enough to be accessed from your own station, and sheer heaven to have one right in your own community. Pacers, Prog-lines and HR-2's were the kings of the two-meter band, and Genave got away with selling the broadest receivers since the era of the Heathkit Sixers and Twoers. But those days are over and two-meter repeaters have now proliferated until ringo rangers and station masters abound from mountains, water towers and tall bank buildings throughout the land.

Of course all of these repeaters take up operating spectrum and every one was either co-ordinated or muscled their way onto either a standard or oddball frequency pair. Thankfully, most repeaters are co-ordinated on standard pairs!

But every good thing has an ending, and the number of available frequencies for two-meter repeaters in even my own hinterland region is close to zero. At last count, there were over twenty-five, possibly close to thirty, repeaters easily accessable from my home QTH of Jonesboro, Tennessee, and the population of my town could fit into Charlotte, N.C., more than 160 times! Recent conversations with two state directors who must be contacted for frequency co-ordination of new repeaters in this area have releaved that there are virtually **no more** 146-147 MHz. frequency pairs available for co-ordination here — even splits, and the 144-145 MHz. frequencies have been used up so fast that they are nearly as scarce as hen's wisdom teeth!

There are no more two-meter frequencies! That's what the state directors are having to tell would-be repeater operators all over CVRA territory, and this kind of news is certainly not welcome to a group or individual who has spent time and money planning for a new repeater. But there are solutions to this problem.

The first solution is called supporting an already existing local repeater. It may be in Podunk, and you may live in Podunk Heights, all of ten miles away, and your club may get all bent out of shape when their club beats you on Field Day, or if their club gets recognition for S.E.T. in the newspaper when your club did a better job. But the time may now be here to consider helping them out with "their" repeater instead of building your own, especially when your club members use it almost every day. Chances are, equipment, money and other resources could be pooled by both clubs to provide a repeater that has fewer breakdowns and more desirable features. Who knows, your members may find a lot in common with their members. You may get to know and like each other so much that you'll mount an all-out joint Field Day effort next year and beat the socks off the boys in the River City KW Owners Club in the next county!

But we were talking about repeaters, weren't we? So let's explore another solution to our two-meter frequency problem. How about putting a machine on 220 or 450 MHz.? Way up in the microwaves? Aw, that'll never work! Yes it will, too! The behavior of 220 HMz. signals is surprisingly close to that of two-meter signals. And right now there is plenty of room for frequency co-ordination. Those who have gone ahead with 220 are glad they did. Admittedly 450 MHz. signals start behaving strangely, but take a look in the "Journal" repeater frequency pages. 450 MHz. repeaters are there and will continue to gain in popularity. Those who have taken the plunge are, I'm sure, anxious to spread the "gospel of UHF," and their experiences could help you avoid the pitfalls.

So if you are planning a new repeater, please, take a look at your area. Does it need another two-meter repeater? Have you honestly checked the possible frequencies in use up to 100 miles away from your area? Do you know if your neighbor is building a repeater in his basement? And Finally, ask yourself if this isn't just a passing fancy and will you wind up with your repeater up for sale at the hamfest next year so that you can buy that new linear, or a new shotgun, or maybe a few tanksful of gasoline.

KNOXVILLE 34-94 11-YEARS OLD

-by Sam Kirby, WB4HAP

When you count on your fingers 11 years, you question is that possible for an Amateur FM repeater to be on the air in 1969. Well, the 34-94 Knoxville WR4ADF repeater has. The owner, George Shaver, K4HXD placed the first repeater East of Chattanooga, Tennessee on the air in mid 1969. The machine was a G.E. "pre" Prog-line with two ground planes. Users were very few for several years, but as FM caught on, and more surplus commercial equipment became available, more enterprising hams converted and got on his repeater.

Today, the K4HXD/R machine is a new Motorola Micor with Phelps-Dodge duplexer and Stationmaster antenna system covering a good portion of the area. The machine has been around on the air for 11 years continuously according to George who has put many hours of hard work on the machine to keep it in top condition.

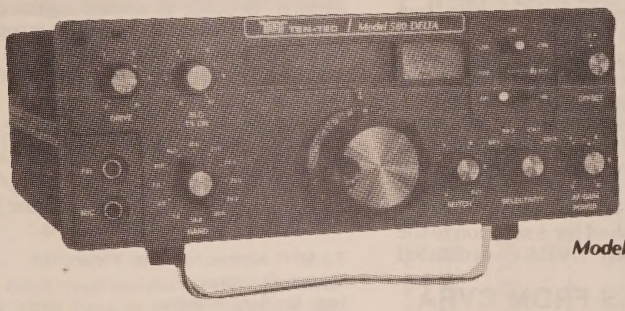
A salute to George Shaver, and his dedication to serving the VHF Amateur community.

New! FROM TEN-TEC

TEN-TEC / Model 580 DELTA

NEW NINE BAND ALL SOLID STATE H.F. AMATEUR TRANSCEIVER
HAS THREE NEW WARC BANDS CAPABILITY

Preliminary Data



Model 580 DELTA

The new TEN-TEC DELTA transceiver is the answer to your wishes and desires -- a transceiver capable of covering the new WARC bands at 10,18 and 25 MHz, packaged in a handsome smaller enclosure and available at an affordable price. DELTA is equally at home in the car or at home... on ssb or cw...RTTY or SSTV. DELTA has all of the features you have come to expect from a TEN-TEC transceiver, and more.....

* 160 thru 10 meters in nine bands.
* 10.0 to 10.5 MHz band fully operational on transmit and receive as received.
* 18.0 to 18.5 MHz and 24.5 to 25.0 MHz bands fully incorporated except for accessory plug-in crystals, available when bands open to Amateurs.
* QSK - Instant break-in.
* All solid state, basic 13 VDC circuits.
* Wide band, no tune final amplifier and receiver front end.
* New styling and small size. HWD 4-3/4" x 11-3/8" x 15"
* New Model 280 Power Supply with over voltage and over current protection.
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* Built-in 20 dB receiver attenuator.
* Excellent receiver dynamic range.
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POWELL VALLEY AMATEUR RADIO CLUB AVOIDS CONFLICT

-by Bob May, K4SE

A potential repeater frequency conflict was avoided recently by members of the Powell Valley Amateur Radio Club of Jonesville, Virginia. In the winter of 1978/79 the club established a local-coverage repeater WB4FGE/R on the 147.81/21 frequency pair. This pair had been assigned by CVRA in 1977 to a repeater that was to be located on top of High Knob, Va., but the repeater trustee Bill Riner, K4AXO, could not put his repeater there until February, 1980, after having waited nearly two years for a Federal Land Use Permit.

When the High Knob machine went into operation, this put two repeaters within thirty air miles of each other on the same frequency. This, of course, caused the dual key-up and hetrodyning problems in the general area as could be expected. However, desiring to keep a harmonious environment among the hams in the area, club officials Claude Pennington (WD4BNA) and Fred Keesee (WA40VC) contacted CVRA officials and asked for a solution to the conflict. Reacting very quickly, CVRA co-ordinated the frequency 146.31/91 (as suggested by WA4°VC) for the Jonesville machine. A close look at the frequencies used within 100 miles of Jonesville indicates that this was just about the last 146-147 Mhz. pair that could have been co-ordinated for that location.

Two things need to be said about this situation. First, words of praise should be given to the Powell Valley Amateur Radio Club for their correct and thoughtful action when they found that the problem existed. Second, it should again be stressed that anyone contemplating putting a repeater on the air should go through the co-ordination process with his state's director, regardless of the coverage limits of his repeater.

By the time this is printed, the Jonesville Repeater, under the new call WA40VC/R, should be operating on 146.31/91 and any ham traveling through the Jonesville area will be welcomed there by the friendly hams who monitor that machine!

WA4OVC/R Repeater Facts:

73 MHT Motrac receiver transmitter
Varden Duplexer
Hall: Crafters Antenna
40 ft. Rohn Tower
1680 ft. above sea level
200 ft. H.A.A.T.
.412 75ohm CATV type hardline threaded with 7/16 - 14 die and screwed into PL 259 for fittings.
Power Output: approximately 30 watts RF or whatever necessary to balance the receiver with the transmitter.

Claude, WD4BNA, says that he hopes that many CVRA members will find the information on the CATV hardline cable above useful as an inexpensive solution for using low loss coax cable.

A SPECIAL THANKS FROM CVRA TO MECKLENBURG ARS CHARLOTTE

The CVRA organization offers a great big "THANK YOU" to members of the Mecklenburg ARS of Charlotte, N.C. The club when mailing out brochures for their Charlotte Hamfest in early March, included a letter from CVRA President Lane Tarleton and an Associate Membership Application in each brochure mailed out.

Total mailing included in excess of 32,000 to a six state area surrounding Charlotte, which also encompasses CVRA territory. The club voted to bear the expense of setting up the letter, printing it, and stuffing it in the envelope along with the hamfest brochure.

Associate Membership Chairman, Larry McLaurin said he didn't have an accurate count at press time of how many of the applications had been filled out and mailed to CVRA, but he said it should have exceeded 100 in the first few weeks.

It is cooperation like this that helps our organization get the message out across the territory. CVRA needs exposure and mailings like Charlotte did helps.

President Tarleton said he hoped more clubs which used bulk mailing of hamfest brochures would treat the CVRA to a "FREE" ride, especially since the postage is no more to include one more sheet of paper in the envelope. The Fayetteville, Cape Fear ARS has included a CVRA Associate Membership in their hamfest mailings for the past two years.

Again, to the over 200 club members of the Mecklenburg ARS, we thank you!

MANASSAS, VA. HAMFEST WILL BE HELD JUNE1

The ole Virginia Hams ARC of Manassas, Va. announce the 7th Annual Manassas Hamfest to be held at the Prince William County Fairgrounds. The event which draws throughout the Northern Virginia, Md., D.C. area has been most successful over the past years, termed the largest and best in the mid-Atlantic region.

Two exhibit halls are available this year, totaling over 15,000 sq. ft., plus the fairgrounds area capable of handling hundreds of tailgaters.

Breakfast will be available in the morning, and hamburgers and sandwiches for lunch. Special activities include ladies program, children's entertainment, FM Clinic and CW proficiency awards, plus QSL bureaus. Many prizes will also be offered. Talk-in is on 37-97 and 52 simplex. Further information may be obtained by writing: Ole Va. Hams ARC, Inc. P.O. Box 1255, Manassas, Va. 22110.

calendar of coming events

The CVRA Journal will be glad to publish Events in your area taking place which are of interest to the entire area. Send information to CVRA Editor 1 month prior to Journal Publication date.

The following Hamfest dates have been supplied by clubs and by Phil Wicker, ARRL Roanoke Director. Tentative dates are marked with an asterisk.

MAY

17-18 . . . . . Durhamfest '80-DURHAM, N.C.
24 . . . . . Md. FM Assn. Hamfest-HARMANS, MD.
24-25 . . . . . Gastonia ARS Hamfest-GASTONIA, N.C.
24-25 . . . . . RACK Hamfest-KNOXVILLE, TENN.
31 . . . . . Swapfest-COLUMBIA, S.C.

JUNE

1 . . . . . 6th Annual Hamfest-MANASSAS, VA.
21-22 . . . . . Ga. St. ARRL Conv.-Hamfest-ATLANTA, GA.

JULY

5-6 . . . . . W. Va. St. ARRL-JACKSON MILL, W. VA.
19 . . . . . Mid-Summer Swapfest-CARY, N.C.
27 . . . . . BRATS Hamfest-BALTIMORE, MD.
25-27 . . . . . NATIONAL ARRL CONV.-SEATTLE, WASH.

AUGUST

3 . . . . . SVARC (Winchester) Hamfest-BERRYVILLE, VA.
10 . . . . . Hamfest-CONCORD, N.C.
16-17 . . . . . Hamfest-FAYETTVL/FT. BRAGG, N.C.
17 . . . . . Hamfest-BRISTOL, TENN.
17* . . . . . Hamfest-RIPLEY, W. VA.
24 . . . . . Hamfest-BLUEFIELD, W. VA.
30 . . . . . CVRA Annual Meeting-SHELBY, N.C.
30-31 . . . . . Hamfest-SHELBY, N.C.
31* . . . . . Hamfest-MORGANTOWN, W. Va.

OCTOBER

5 . . . . . Hamfest-ROCK HILL, S.C.
5 . . . . . Va. State ARRL-VA. BEACH, VA.
11 . . . . . Autumnfest-ASHEVILLE, N.C
12 . . . . . Hamfest, Eastern N.C.-NEW BERN, N.C

DURHAM HAMFEST HAS FCC EXAMS

Although the FCC has stopped giving examinations at hamfests, they had already committed themselves for the Durham, N.C. hamfest on May 17. Charles Durst, WA4WTX confirmed this to the Journal too late for the February issue.

The exam is not a walk-in type, FCC 610 forms were due in the Norfolk office of FCC by May 9 for entrance into the exams at the hamfest on Saturday

CVRA ASSOCIATE MEMBERSHIP

GET A FRIEND TO JOIN!

JOIN THE CVRA HONOR ROLL
SIGN UP 10 MEMBERS

APPLICATION FROM _____ WHO RECOMMENDED CVRA!

CVRA ASSOCIATE MEMBERSHIP APPLICATION:

Name _____ Date _____
Address _____ Call: _____
City: _____ State: _____ Zip: _____
Phone: (____) _____ *Member of ARRL?* ___ *Yes* ___ *Life* ___ *No*
The Repeater I call "home" is: _____ REPEATER CALLSIGN
Enclosed is: $ _____ ($3.00/1 yr., $6.00/2 yrs., $9.00/3 yr.)
___ R New ___ Renew

Mail to:
CVRA MEMBERSHIP
P.O. BOX 5655
GREENSBORO, N.C. 27403

RJ-5-80

TEKNIKLE TOPIX

FM-76 HARMONIC PROBLEMS

-by Watson Gabriel WB4EXW, Technical Editor

This issue we will turn our thoughts to 220 MHz and discuss a problem with the Clegg FM-76 transceiver. This problem, which seems to apply only to the FM-76 transceivers which were sold in the United States about a year ago, was brought to our attention by John Huffman, W4IRE. All of the early units which have been checked were found to have this problem of receiver intermod. Quoting from John's letter:

"Since both the FM-76 that I use and the one we converted to a repeater were recently found to have an intermod problem caused by receiver oscillator multiplier coils L14 and L15 being improperly tuned, I thought you might want to relay this info to the CVRA members.

"The receiver oscillator problem was detected because our repeater input frequency is 223.1 MHz. Thus the receive crystal operates at 53.1 MHz and 2 times 53.1 106.2 MHz. 106.2 MHz minus 95.5 MHz (WHPE-FM High Point) is 10.7 MHz (The FM-76 receiver IF - editor)! The desired harmonic at the mixer is of course 4 times 53.1 212.4 MHz. Then 223.1 MHz minus 212.4 MHz 10.7 MHz.

"With the slug of L14 extended about 2 turns out of the top of the coil (the position found in the two units I have worked on), a grid dipper shows a resonance at approximately 220 MHz.

"After returning both L14 and L15, the grid dipper shows a resonance in the vicinity of 212 MHz as required for proper 4th harmonic response and mixer injection. The L14 slug was turned approximately 4 turns clockwise (into the coil form) and L15 was turned approximately 2 turns clockwise.

"We are now free of the interference from WHPE-FM, High Point, NC. The mistuned coils apparently were allowing a large second harmonic at the mixer transistor, TR2."

An easy way to tune L14 and L15 if your transceiver has them improperly tuned is to get a friend to give you a fairly weak signal on a simplex frequency and tune the coils for maximum signal. A better signal source is, of course, a good signal generator but not all of us have one available.

Thanks, John, for bringing this information to our attention. The CVRA always enjoys receiving feedback from its readers.

REPEATER MEMBERSHIP

If you are a repeater owner and you notice there is an "N" beside your repeater listing, that means you are not a full member of the CVRA. You may join for only $8.00 per year and have the Journal delivered to TWO persons you wish to have receive it. Write the Repeater Membership Chairman. His name is listed on page 2 of the Journal.

WEST ANTENNA SERVICE—SPECIAL CLOSE OUT ITEMS

- **Consolidated C-16 Straight and top tower sections, some finish damage - $30.00 ea.**
- **5-Conductor flat rotor wire - 8 cents per foot**
- **Crankup mast 40 & 50-ft. (slight finish damage) $40.00 & $50.00**
- **Guy Wire - 18 Gauge for telescoping mast - 50-ft. coil - $2.00 ea.**
- **High Gain BN86 Bauns - $14.00**
- **Ground Stakes for telescoping mast (lt. duty) $2.00 ea.**
- **Guy Wire ¼-inch 500-foot coils only (will not cut) 12¢ per foot**

MISCELLANEOUS ONE OF A KIND

¾-inch Poly. rope 217 feet (new) will not cut $40.00
½-inch air impact wrench (slightly used) 65.00
1-3/8 high speed air drill (slightly used) 35.00
1-3/8 10w speed air drill (new) 40.00
1 Air hammer with chisel, punch, weld breaker and sheet metal cutter (slightly used) 40.00
1 Closed Circuit TV Monitor and Camera 400.00
1 Commercial 2-way radio system, including 100-watt base; Two 100-watt Mobile units, two 5-watt hand-held units, two mobile antennas. One Phelps-Dodge full wave base antenna and charger for hand-held. All units are Motorola and completely solid state, and less than 40 months old. Low band single freq.

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CLASSIFIED ADVERTISING

If you have equipment you would like to swap, sell, buy or trade you're invited to send us your want ads. Mail them to our Sales Manager listed on page 1 of the Journal. Ads are not limited to Amateur Radio items.

CLASSIFIED AD RATE: Non-Commercial or Commercial. $1.75 per ad in advance of Publication. (Max 30 words any one ad)

Ads must be submitted 30 days prior to publication. The CVRA assumes no responsibility as to the accuracy of description of equipment or its condition.

ATTENTION HOMEBREWERS: Avantek GPD Amplifiers, 5-500 Mhz., 15db Gain, circuit boards, Plessey 1600 Series ICs in stock, Spec sheets available. E.H.I. COMPANY, 7808 Sheryl Dr., Norfolk, Va. 23505.

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CVRA DECALS, almost gone! Order yours today. Send 25¢ for each decal wanted, with S.A.S.E. to CVRA DECAL, Route 1, Box 806, Colfax, N.C. 27235.

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TOWER 100-FOOT Freestanding Rohn tower. Disassembled ready for pickup. $1,00.00. BUDDY COOPER, WB41BY, Box 99, Atlantic Beach, N.C. 28512. Phone (919) 726-2865 or (919) 726-8669.

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HW-101, A.C. Power Supply, $300.00. Clegg 27-B, Hygain 270 Co-linear antenna $175.00. PHIL BURTON, WB41EP, Rt. 1, Box 198, Castle Hayne, N.C. 28429. (919) 675-0609.

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SELL — COMPLETE DRAKE — TR4C, AD-4 and RVAC. $575.00 firm. Mint. New Finals and VOX Relay. Will ship. WB4AEE, 1011 Avondale Road, Asheboro, N.C. 27203.

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FOR SALE — GLB Synthesizer for 2-meters, low profile factory built, like new, set up for MAstr-Pro, but can be easily changed. $75.00 WA4VBC, SID PURVIS.)919) 633-5586, New Bern, N.C.

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TERRIFIC SWAP AD SHEETS! Ham, antique radios; nostalgic entertainment, collectables! Nationwide since 1971. 10¢ a word. Subscribe, 24 issues — $7.50, get one ad free. Sample next 5 issues — $2.00. "ELECTRONICS TRADER" Box 73-RJ, Folly Beach, S.C. 29439.

WANTED TO BUY — G.E. Mastr Pro mobile unit for 6-meters. WA4VBC, SID PURVIS (919) 633-5586 New Bern, N.C.

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RUBBER DUCKS! You hear the difference with Larsen Kulduckies. Icom 215, HyGain, Tempo-S1 only $8.95. TNC & Bnc $10.95. Add $1.00 shipping. WILLIAMMS RADIO SALES, Rt. 1, Box 806, Colfax, N.C. 27235.

PRESLER NAMED NEW CVRA FULL MEMBERSHIP CHAIRMAN

RALEIGH . . . Lane Tarleton, President of the CVRA announced Sunday, April 20, the appointment of Marie Presler, WA4YMM to become CVRA Full Membership Chairperson. Marie will assume duties from Bill Paige who resigned the post in March after six years service.

In making the appointment, Tarleton said Marie was exactly the type person we were looking for to take over the job of keeping up with all CVRA Repeater Memberships, and the job of soliciting new members and reminding repeater owner of newewal time at the end of the year.

"Marie travels to many hamfests each year and has a chance to get out and meet people especially repeater owners," Lane said. "We are fortunate she accepted the post."

Marie, mother of teenage boys (who are also hams) and wife of Carl Presler, W4LPL, has been quite active over the past few months helping out with Associate Memberships. She had the distinction of becoming the first to qualify for the Repeater Journal Honor Roll by getting at least 10 new Associate Members. She said she had a goal of 100 new members by the Annual Meeting in Shelby.

"Bill Paige has done an outstanding job over the past six years, and I'll have to work real hard to fill his shoes," the new Full Membershipo Chairman said. Marie plans to meet with Bill very soon and get the files and cases of paperwork which is part of the Full Membership chairman's job. "I'll certainly have a lot of questions to ask Bill when we get together," Marie said, "But I can learn fast, and feel I can get everything straightened out and be ready for renewal time at the end of the year."

Marie Presley will be overseeing Assistant Directors in the five CVRA Districts who work within their District to solicit Full Repeater Memberships. She will keep the master records for the CVRA and supply copies of each membershi application to the Journal Editor, the computer and Directors.

The Journal Staff welcomes Marie into the ranks of the CVRA and we are confident another top-notch person has been installed into office to strengthen our organization.

The new Full Membershipo Chairman's address is: MARIE PRESLER, WA4YMM, P.O. Box 35171, Fayetteville, N.C. 28303. (919) 867-2169.

AN OPERATING TIP

Don Coyman, W4RRK of Greensboro, N.C. comes up with this operating tip. Since many amateurs now have transceivers which are scanning, you might consider when you come on frequency wishing a QSO, you mention the repeater, or frequency you are on, so scanning operators will be able to return to the repeater you are on and answer you. Understand some of the transceivers, after a signal leaves, will continue scanning, unless the operator can quickly look at his digets, he has no idea in the world what repeater you called on.

So when you come on the repeater, perhaps you might say: This is W4??? listening on 76, or may W4??? listening on 16-76. You'll probably have a better chance of getting an answer. (editor) (P.S., Don will celebrate his 50th year as a ham in 1981)

CARY SWAPFEST JULY 19

The 8th annual Cary, N.C. Mid-Summer Swapfest will be held this year on July 19, at the Cary Lions Club Shelter, next to the Cary Senior High School.

The event sponsored by the Cary ARC will have flea market from 9 to 1 p.m., with open auction from 1 to 2, and price drawing at 2 p.m. talk-in will be on 28-88 and 52 simplex. You can rent tables at the site or bring your own. Further information may be obtained by writing: CARC, Box 53, Cary, N.C. 27511.

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AD AND NEWS DEADLINES

AUGUST ISSUE . . . . . JULY 1

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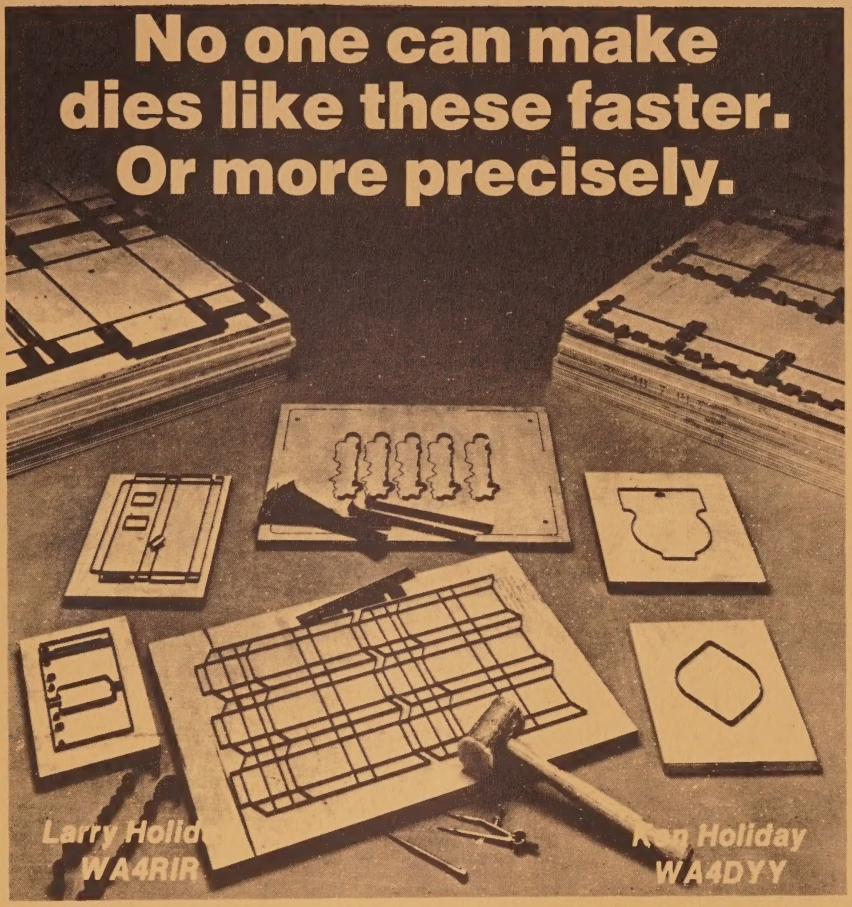

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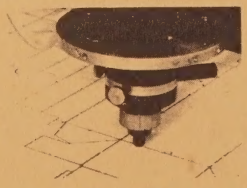

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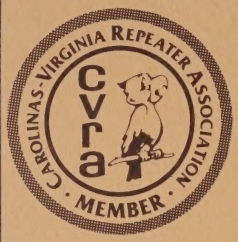

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For Assistance in Repeater Coordination, Frequency Coordination, Changes in Repeaters, and Any other Assistance You May Require from the CVRA. Contact Your Local Director or His Assistant.

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